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ESSEC KNOWLEDGE REVIEW

RISE Strategy

DECEMBER 2023

EDITORIAL

In 2020, ESSEC launched its RISE Strategy. This strategy, designed to meet the needs of 21st century students and businesses alike, consists of three strategic pillars: data and AI, entrepreneurship and innovation, and addressing social and environmental challenges. Over the last three years, ESSEC faculty have been busy conducting innovative, impactful research on these topics. Their work is highlighted in this special issue.

It is impossible to overstate the profound impact that artificial intelligence (AI) has had on our world. It is both the catalyst for remarkable progress and the harbinger of profound change. ESSEC professors explore various facets, like how companies can use ChatGPT to their advantage, the digital transformation, and the impact on the world of work. Change is also afoot via entrepreneurship and innovation, an area ESSEC faculty knows well. Here, they discuss social entrepreneurship, how play can boost innovation, and equality in entrepreneurship. Finally, ESSEC is committed to addressing our world's social and environmental challenges, in an initiative dubbed "Together". ESSEC professors share their work on workplace equality and harness research for climate change solutions.

These three topics are often intertwined, in research as in life. They form the building blocks to a ESSEC's holistic approach to business education. ESSEC's dedication to these areas demonstrates a commitment to nurturing the leaders of tomorrow, who will be equipped to drive positive change, foster innovation, and address the most pressing global challenges. This special issue showcases ESSEC's vision and pursuit of excellence in pedagogy and research.

Julia Smith, *Editor-in-Chief of ESSEC Knowledge*

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HOW IS AI GOING TO CHANGE THE WAY WE WORK?

***Julien Malaurent** is Professor of Information Systems at ESSEC. He is also Academic Co-Director of the Metalab for Data, Technology and Society and Academic Director of ESSEC Online programs. He received a PhD from ESSEC, analyzing how users from large international firms bypass information systems. His research is regularly published in prestigious journals, such as* Journal of Management of Information Systems, European Journal of Information Systems, *and* Journal of Information Technology. *He is also an editor for the* Information Systems Journal. *Julien teaches courses on digital transformation, and on AI management in various ESSEC pre and post experience programs.*

We're all thinking about it: how is AI going to impact our jobs? Julien Malaurent, Professor of Information Systems, and co-director of the ESSEC Metalab, conducted **a study** with the OECD to explore the impact of AI on work in eight OECD member countries, looking at how AI will impact work, how employees adapt, and new challenges that arise.

Dr. Malaurent led the France component of the study. The study examined companies in the manufacturing, finance, and insurance sectors in the United States, Canada, the United Kingdom, Ireland, Germany, and Austria, collecting responses from over 2000 employers and 5300 employees between mid-January and mid-February 2022. They complemented this quantitative data with qualitative data from over 100 companies across the seven countries and in Japan.

Who is impacted by the use of AI?

Study participants held a wide range of jobs, with different levels of exposure to AI at work. That being said, the researchers did identify some demographic trends. Compared to non-users, AI users were more likely to be younger, male, and more educated. The researchers found that older workers may have a harder adjustment process and appear less enthusiastic about it. This suggests that AI has the potential to impact everyone, even if they aren't using these technologies in their day-to-day life.

How will AI impact our jobs?

Three trends emerged from this data:

If AI is used correctly, it can boost productivity and job quality.

There's reason to be hopeful: the majority of participants found that AI can boost productivity and job quality. Around 80% of participants shared that using AI had boosted their performance at work, with only 8% reporting a decline

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they attributed to AI. In fact, most users found that it boosted their decision-making. Employers see this potential for improved performance as one of the key incentives for AI usage, alongside reducing staff-related costs. When companies consulted their employees about AI adoption, they tended to experience more positive outcomes in terms of employee performance and working conditions. This suggests that it's important to include employees in the conversation moving forward.

In what may just be its biggest selling point, workers also identified possible boosts to job quality. AI has the potential to help with the not-so-fun parts of the job and reduce time spent on tedious tasks, boost engagement and improve physical safety. At the moment, employment rates are stable, though hiring may have slowed down. Dr. Malaurent notes that "Even if an organization's AI use is very sophisticated, there's a shared belief that some tasks will always be best done by humans, like those involving empathy, social interaction, and decision-making related to human resources".

Using AI requires new skills, and companies need to rise to the occasion.

To make the most of AI, companies should ensure that their employees are equipped with the right skillset, for example analytical, "human" skills (like creativity, communication, and critical thinking), and specialized AI skills.

Many companies surveyed are already responding and offering or funding specialized training, focusing on upskilling current employees. Employees who received training also tended to report that AI had a positive impact on their working conditions.

While most workers felt enthusiastic about the opportunity to learn more, some employees are also expressing that they feel increased pressure at work, in part because they feel increasingly surveilled at work. In addition, employees who had participated in training were more likely to express concerns about their job stability, perhaps because they see what AI can do or because they worry about having the required skills. Taken together, this suggests that it benefits both companies and employees when companies provide training to use these new technologies, although it does not assuage all fears.

Employers view a skills mismatch and high costs as the main barriers to widespread AI implementation.

Even if companies are starting to respond to the need for AI training, they also express that the current skills mismatch is a barrier to widespread AI implementation. The cost is also a barrier to use. Offering and funding training programs can be expensive, as can the tools themselves.

Will the robots take our jobs? Not so fast

While employers did identify reducing staff costs as a key motivation for using AI, they also reported that their employment levels have not changed due to AI. However, among companies using AI, there were more with decreased staff numbers than with increased staff numbers, a clue that AI might be automating more jobs than it's creating right now. While around half of employees reported that they weren't concerned about their job's future, AI users were more likely to report concern, and many workers did indicate that they expected salaries in their field to decrease due to AI over the next decade.

All together, the outlook for AI's impact on the labor market gives reason to be positive. Employees in companies that already use AI report its boost to their productivity and working conditions, and are on board with taking part in training to learn more. We're not yet seeing mass redundancies in favor of AI automation, and companies are choosing to upskill and retrain their current employees to adapt to new ways of working. That said, this can be costly and form a barrier to widespread adoption of AI technologies. Employees need to be included in the conversation about AI usage at work to promote decent work moving forward.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge

Reference

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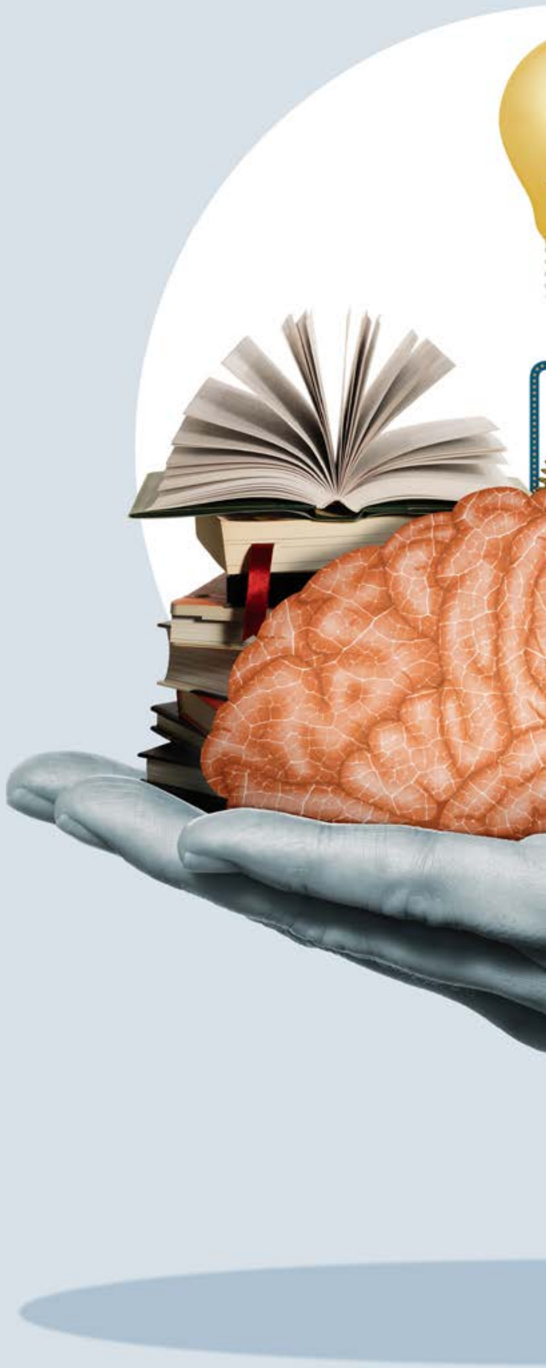
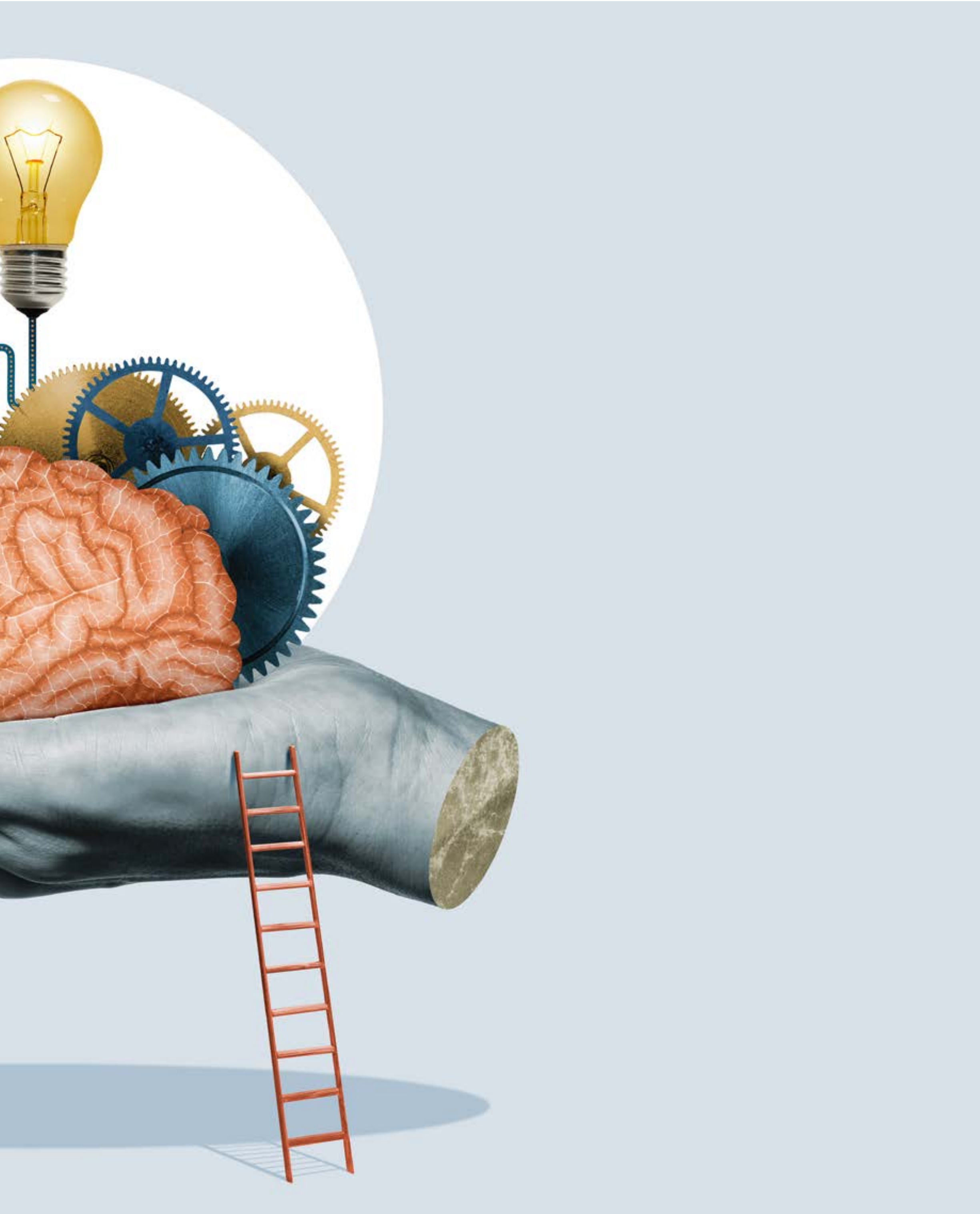




HOW COMPANIES CAN USE CHATGPT TO THEIR ADVANTAGE

Maciej Workiewicz *is Associate Professor of Management at ESSEC, where he teaches strategy and strategic management courses in the school's Master in Management, MBA, and Executive programs as well as strategy, organization theory, computer simulation, and machine learning in the school's doctoral program. In his research, he focuses on how organizational structure influences the way companies adapt to industry change and innovate. His research has been published in the* Strategic Management Journal, Organization Science, Journal of Organization Design *and the* Journal of Management Inquiry. *Before joining ESSEC in 2016, Dr. Workiewicz received his MBA from INSEAD, and later earned a PhD in Management (Strategy) from the same school. Prior to INSEAD, Dr. Workiewicz worked at Deloitte in Canada and at Siemens in Germany.*

Everyone is talking about artificial intelligence large language models (LLMs) like ChatGPT - with excitement and with a bit of trepidation, too. How will it change how we work and learn? How can we harness its power? And of course, the ever-present: and will it replace us?

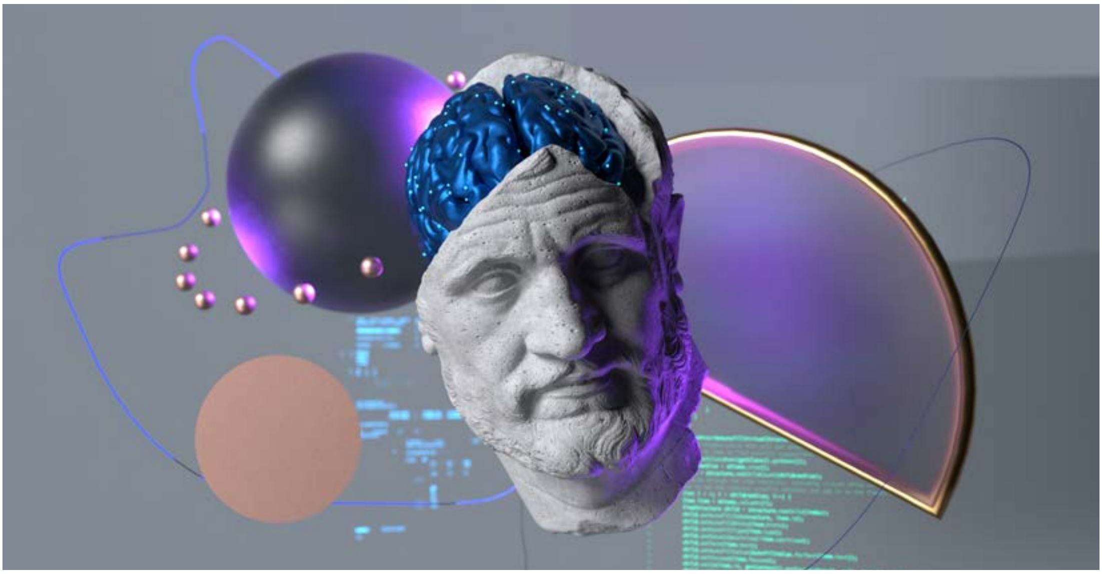
Maciej Workiewicz, Associate Professor of Management at ESSEC, researches how organizations adapt to change, like the kind of technological change artificial intelligence engenders. He shares his thoughts on how business and higher education can use these tools to their advantage.

He notes that mastering these tools requires practice: learning by doing. Users need to get a feel for the model, to see what prompts work and what doesn't: they can ask the same question in different ways, and observe and reflect on changes as the model evolves. Furthermore, as the technology rapidly evolves, some approaches that didn't work well in the past may now become usable and one needs to keep using the technology in order to keep up. Supporting this is the number of job postings for "prompt engineers" popping up on LinkedIn and Indeed: this new and lucrative position involves inputting the most optimal queries into your LLM of choice, to get the best possible replies. But what if you aren't a prompt engineer?

As Dr. Workiewicz notes: "As a tenured academic, I'm privileged because learning, trying, failing, and testing are part of my job description. But what about other knowledge workers who must meet deadlines or have teammates who depend on them? It's unrealistic and perhaps unfair to expect them to explore AI during their personal time."

How can companies optimize their use of this technology?

While these tools are user-friendly, it takes more than creating your account and asking a few questions to make the most of it. Dr. Workiewicz outlines some suggestions for companies and individuals looking to take full advantage from LLMs and AI:



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Allocate designated exploration time: Allow employees to explore AI tools, like GPT, during work hours. This will help them build confidence and expertise without sacrificing personal time.

Provide training and resources: Offer structured training sessions and materials to help employees understand the tool's capabilities, limitations, and best practices.

Foster a culture of sharing: Encourage employees to share their experiences, insights, and tips with colleagues.

Balance exploration and exploitation: The late James March, Professor at Stanford GSB, who spent his career studying organizations and learning, used to say that exploiting current capabilities is seductive for organizations. It is less risky, the effects are immediate, and people know what to do. In an era of rapid transformation, organizations often find it easier to maintain the status quo. Hindered by organizational inertia, which stems from rigid hierarchies and complex processes, or by simple complacency brought on by years of strong performance, many organizations grapple with recognizing the need for change. By concentrating on the practices that contributed to past successes, these organizations may experience short-term efficiency, but at the expense of long-term preparation and adaptability. This strategy may be problematic even in times of relative stability and technological continuity; however, it can prove to be disastrous when the landscape experiences a sudden shift. It is arguably certain that we currently find ourselves in such a period of change.

Thus, last but not least, one should keep evaluating the impact of GPT (or similar technology) on productivity and make necessary adjustments to ensure a balance between exploration and exploitation.

GPT forces changes to education as well

Artificial intelligence is sure to have an impact on higher education institutions too - indeed, organizations like **UNESCO** and the **European University Association** are starting to analyze its potential impact and provide guidelines for its implementation.

Dr. Workiewicz notes: "Disruption is a familiar topic in business schools, where we teach future leaders the importance of adapting to changes in technology, society, and regulations. Now, disruption has arrived in our classrooms, forcing us to reevaluate our teaching methods and adapt to new AI technologies. GPT is a powerful AI language model capable of generating high-quality text in response to complex questions."

The impact of GPT is already apparent. Students can easily access tools online that provide well-articulated answers to nuanced problems. The line between AI-generated text and human-written content is blurring, making it difficult, if not impossible, to detect plagiarism. This development challenges the status quo in business education and demands that we rethink our teaching methods as well as what we teach.

As we venture into the era of GPT and other advanced AI technologies, it is essential for educators to understand and integrate these tools into their curriculums. GPT can be used to prepare teaching plans, create personalized exercises, help students brainstorm ideas, and act as a simulated exercise partner in negotiations or case analysis.

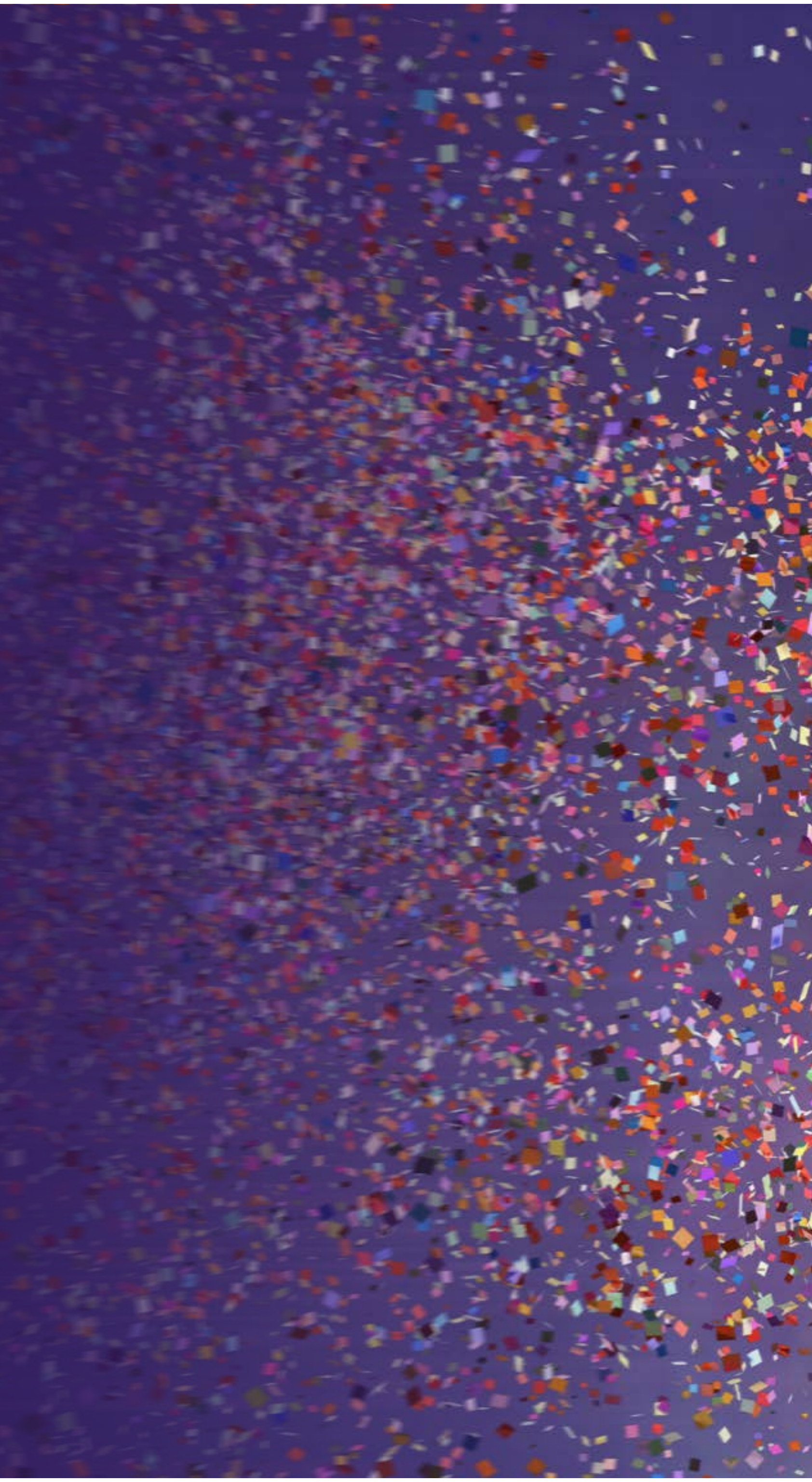
The applications are numerous, and every day an application update brings new possibilities. These creative applications of AI will not only enable productive classroom discussions: it will also ensure that our students are prepared for the changing labor market and economy. The need for continuous education is more pressing than ever, as our alumni will also benefit from learning new skills to thrive in this rapidly evolving landscape.

The potential of GPT extends beyond academics, with significant gains in productivity observed in fields such as computer coding, journalism, and text editing. It is clear that we cannot ignore the transformative power of this technology, which is poised to reshape our lives and work. By embracing AI tools like GPT and learning how to cooperate with them, students and managers alike can amplify their impact in the business world. We have the tools. Now we need to make time to use them.

One more final thought

One of the key principles behind OpenAI is that if we introduce AI early and develop it slowly, we will give society and our institutions time to adjust to them, find productive uses and approaches and guard against malevolent applications. But we need to start early and invest sufficient time to allow organizations and institutions to integrate this tool into their workflows. Similarly, business schools, and the educational sector in general, should embrace this new technology as soon as possible so that fresh graduates and experienced managers are kept up to date in terms of knowledge and skills. Otherwise, all this extra headstart will be for nothing.

For more insights from
Maciej Workiewicz, check out **his blog.**

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ARE FRENCH COMPANIES READY FOR THE DATA REVOLUTION?

***Isabelle Comyn-Wattiau** is Professor of Information Systems and holds the Chair of Information Strategy and Governance at ESSEC Business School. She holds a M.S. and Ph.D. in Computer Science from the University of Paris Sorbonne. Her research interests include information systems and database design, data quality and security, design science research, and conceptual modeling. She has published more than ninety journal and conference papers on information systems and database systems. Her research has appeared in journals such as the* Journal of Management Information Systems, Decision Support Systems, Data and Knowledge Engineering, Expert Systems with Applications, *and major academic conferences such as the International Conference on Conceptual Modeling (ER).*

The word "data" comes from the Latin *datum:* (thing) given. What exactly can data give us - and how do we make the most of this gift? With questions swirling about privacy, AI ethics, and the future of the world of work as we know it, how do we work with data while keeping our values in mind? Companies need to use data effectively to maintain a competitive edge, and in a **recent report,** Isabelle Comyn-Wattiau, Professor of Information Systems, Decision Sciences and Statistics and chaired professor of the ESSEC Information Strategy and Governance Chair, alongside corporate partners Covea and Devoteam, outline a barometer to assess companies' data strategies.

They created a questionnaire to explore how companies use data, getting results from 116 companies. They derived several key findings about how companies value data, how they manage it, and their next steps.

To explore companies' data strategies, the researchers sent out questionnaires to French companies at the beginning of 2023. Among the 116 participants were business leaders, IT managers, data managers, and other leaders, representing a variety of sectors and company sizes.

Data as a source of value

Companies are investing both human and technical resources into managing data - so it needs to provide a return on investment. Dr. Comyn-Wattiau suggests a three-pronged approach for evaluating data value:

1. **Its value:** what does it bring to the organization?
2. **Its cost:** what are the costs over its lifecycle, from acquiring it, preparing it, stocking it, using it, sharing it, and disposing of it?
3. **Its risk:** what are the operational, strategic, and legal risks of using it?

Their results found that today's companies are considering these factors, and that their main concerns are:

- Getting the most they can out of data
- Making sure they conform to laws and regulations, like Europe's GDPR law
- Minimizing the risk involved
- Minimizing the costs involved

In particular, companies noted that they are able to improve processes, optimize tasks, and reduce costs thanks to the use of data. Indeed, thanks to their use of data, a third of the organizations surveyed (34.2%) found that they could expand their product/service range, and 26.3% were able to boost their sales figures. The bigger the company (in terms of revenue or budget), the more emphasis they place on the value of the data, with less concern for minimizing costs: ⅔ of companies surveyed are aiming to further optimize their use of data . Companies of all sizes place equal importance on conforming to legal requirements.

Data governance in French companies

But it's not enough to use data - it also needs to be properly handled, which is where data governance comes into play. While there's no exact consensus on what "data governance" entails, it's generally accepted that its main objective is to maximize value while minimizing costs and associated risks. Data and information governance can be implemented at different levels: strategic, intermediate, and operational. It relies on three pillars: people, processes, and technologies. Perceptions vary, with 36% considering it a strategic approach to maximize data value, 24.6% defining it as a framework describing principles and rules, 18% emphasizing operational data management rules, and 14% viewing it as a subset of corporate governance. Given this, it's not surprising that a large chunk of respondents identified it as something their organization needed to improve on (40%) and that it was a key strategic subject (35%).

The researchers also explored the level of companies' data governance, separating it into four sections:

- **Initial (40.4% of companies):** minimal level of documentation and regulatory control
- **Managed (31.6% of companies):** data governance is enacted in certain strategic areas
- **Defined (19.3% of companies):** data governance is present for all areas of the company
- **Optimized (8.8% of companies):** best practices for data governance are used across the company's activities (such as maintaining a data catalog, monitoring data quality, and managing data security)

Since data can play a crucial role in making a strategy successful, data governance plans are critical, and the companies surveyed tended to agree, with almost half (44.7%) noting that they're a key part of the strategy and over half (56.1%) adding that data governance is seen as a strategic tool by leaders. The implementation of Europe's GDPR or the arrival of a data expert as an executive tended to be the kick-off to data governance being given heightened strategic importance.

With so many companies demonstrating immature data governance plans yet recognizing the important role of such plans, it's a clear area for improvement.

Data dreams

A company's data dream rests upon four pillars:

- **Organizational:** This is the most critical part of building a data strategy, as it includes defining the key jobs that will handle data such as data owners, data managers, and Chief Data Officers. It also includes structuring the data strategy and establishing project reporting and budget management.

Most companies surveyed place this under the purview of their IT department (55.3%), but other departments tend to be involved as well: for example, the risk and compliance department manages data-related risk in about 30% of companies.

- **Human capital:** In addition to the roles outlined, employees add to the strategy through dialogue between key stakeholders. While half of employees surveyed noted that there was excellent communication between major players, over 60% also identified the diffusion of a strong data governance culture as an axis for improvement at their company, and half also noted that increased training around these topics and involving employees in decision-making would be useful.

- **Technology:** the infrastructure and tools put into place and used at the company to deal with data throughout its lifecycle.

- **Financial:** all that concerns money, from the company's budget and how it's structured to the profitability of the data strategy. While many respondents didn't necessarily all have the information required to answer, only 9% of those that did responded that more than 10% of their company's budget was devoted to data - suggesting that many companies dedicate rather modest sums to their data ambitions. However, around a third responded that while there were currently insufficient sums, the budget was growing.

Artificial intelligence (AI) and social impact

It's impossible to have a conversation about data without acknowledging the role of AI. While this study was conducted in early 2023 and it's a quickly evolving landscape, most companies seemed to be using AI in some capacity already, with only just under a quarter (22.8%) saying that they didn't use AI at all. However, most companies were still at the beginning of their AI journey, with undercooked AI strategies, and it was primarily the large companies that had more developed AI uses.

Data can also be used for good - and indeed, a third of companies surveyed already use data to achieve their environmental, social and governance goals. However, around half of the companies noted that for the time being, there wasn't much discussion or action on the topic.

For both AI use and social impact, there's room for growth when it comes to making the most of current technologies.

What's next for data strategies in French companies?

Data strategies seem to be in a nascent stage in French companies. When asked what they consider next steps, participants identified primarily organizational factors: clarifying roles and responsibilities, the commitment of the C-suite, training employees, reinforcing governance structures, increasing transparency, and boosting communication, alongside increased financial resources. On the flipside, a lack of dedicated employees, resistance to change, an ill-suited corporate culture, insufficient finances, and a lack of communication and commitment were identified as the main barriers to expanding the data strategy. These findings suggest that human and organizational factors are key for taking a company's data dreams to the next level.

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Taken together, French companies appear to be taking their first steps towards building a data strategy, with room for growth. Companies seeking to make better use of their data need to identify their key institutional players and their specific roles and responsibilities, and ensure that these players are properly trained and encouraged to communicate with one another to prevent information silos. Leaders should build a corporate culture receptive to data and change, and ensure that this commitment comes from the top. With data a key part of maintaining a competitive advantage today, French companies need to work on their strategy - and this barometer is one useful way of measuring progress.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge

THE DIGITAL TRANSFORMATION: TOMORROW'S ORGANIZATION DESIGN

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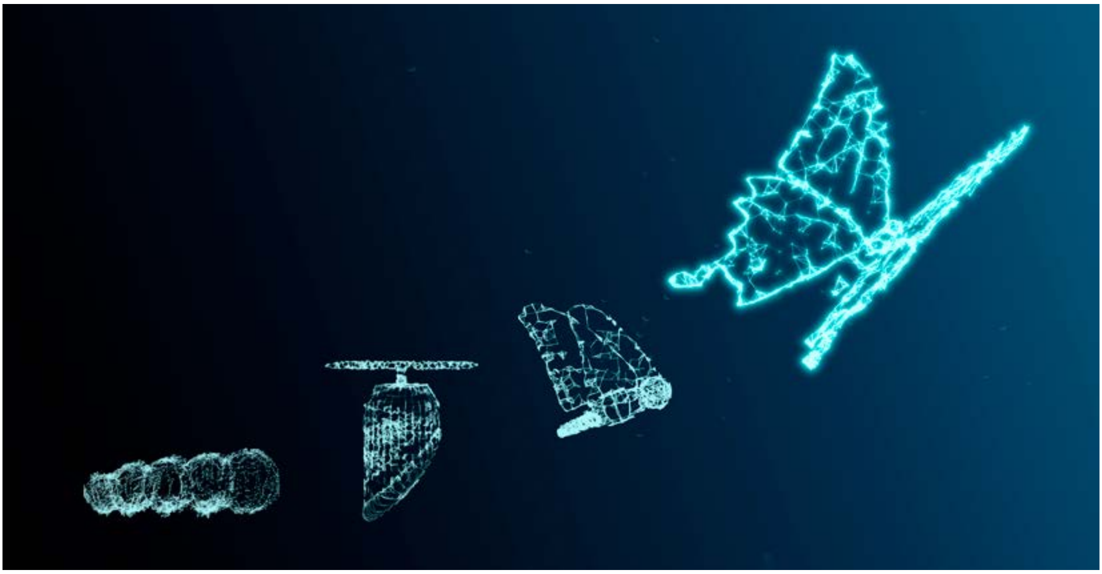
With the rise of technologies like Zoom, Teams, artificial intelligence, and people analytics, there's a strong chance your work habits look different today than they did a few years ago. Indeed, over the last few years, new digital technologies have transformed the way we work. The digital transformation refers to the adoption of these digital technologies (and others) in commercial settings, and this transformation will drastically change the organizational landscape. In a recent paper in *California Management Review,* Pooyan Khashabi (ESSEC Business School) and Tobias Kretschmer (Ludwig-Maximilians-Universität München) explored how digital transformation will impact organization design, identifying opportunities and challenges and providing recommendations for managing these.

The digital transformation offers a world of opportunities, and companies that capitalize on these tend to reap the benefits. Amazon has eclipsed its competitors through mastery of digital analytics and offering a personalized, user-friendly online shopping experience. They're a success story - but companies that fail their digital transformation risk losing their competitive edge.

There's no shortage of coverage and case studies on the digital transformation's effect on businesses - but what's often left out of the narrative is the impact of the digital transformation on internal processes, and how it impacts organizational design. Yet this is key, because organization design can significantly impact performance. To study the effect of digitization on organization design, this study first focuses on how the overall goal of the organization is divided into smaller goals to be completed by its subunits, and how these are overseen and re-aggregated into the shared goal. Complementary subgoals should be executed by complementary subunits who work together to achieve the goals. Management will oversee their progress, and contribute to recombining it for the final output.

The researchers broke down this process into steps, looking at how the digital transformation influences each one, as outlined below.



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What needs to be done?

The first step for creating output by organizations is to define which tasks are needed and how they will divide and group these.

Thanks to digitization, more information is available, so decision-makers might identify new tasks that they hadn't previously considered. For example, the Industrial Internet of Things (IIoT) provides a vast pool of data on how the manufacturing components are linked to the administrative ones. This means companies can more effectively outline the subtasks needed for their final goal.

As a result of the digital transformation, new tasks are being created and old ones rendered obsolete as they can be accomplished with digital tools. This has also had an impact on grouping tasks: researchers suggest grouping interdependent tasks together, and digital tools may be able to identify and measure new interconnections between tasks, offering a better way to group them. Take the use of AI in healthcare: it has allowed hospitals to detect more information in prescreening, to name one use, eliminating the need for patients to go between specialists. This can also serve to simplify communications between different units of the organization, easing time and monetary costs and potentially making the firm more efficient.

Who does what? Divide and conquer

Once the subtasks have been identified, next up is figuring out who will do what task. With more data at their disposal as a result of digitization, organizations can build matching mechanisms and attribute tasks more efficiently. This can also help with hiring: employers and employees increasingly use digital resume databases like LinkedIn and internal job boards for finding the right employee or position. This reduces search costs on both sides. It can also be useful for the prospective employee, who can use online communities like Glassdoor to get inside information about the firm that wasn't readily available in the past. Even aside from finding traditional employment or the gig economy, there's increasingly a market for online labor platforms for freelancers that share longer-term, high quality projects, like Upwork. These platforms make finding an assignment as a freelancer easier, and also less risky, and enables firms to easily find qualified external contractors.

Times are changing internally as well: digital human resources management systems (people analytics) provide managers with more information about their employees so they can make well-informed strategic decisions. One use of these is to use an employee's task data to identify what kind of task they would be suited for, eliminating an expensive trial and error period.

In addition to improving the employee-task match, the digital transformation has made task assignment more efficient by making it easier to acquire information. This makes decision-makers able to handle a new variety of problems, and offer more suitable professional development programs for employees. This makes it possible for employees to more effectively deal with complex issues, enabling employers to identify a larger pool of employees that can accomplish a task, achieving quality and quantity both.

Monitoring and completing tasks

Effective monitoring comes next to make sure that tasks are completed. Once again, the digital transformation can help: it might even make it so that less vigilant monitoring is necessary. With a better skill match, employees are working on a task that is suited to them, likely making them less likely to slack off. The use of digital tools also enable the use of new work arrangements, like working from home, which can lead to higher employee satisfaction and ultimately more productivity.

If firms still want to implement tools to oversee their employees, they can do so. There are many virtual monitoring systems available that measure and record users' work. One such example, the Upwork "Work-Diary", tracks keystrokes and takes screenshots, so that their work progress and billable hours can be tracked. That being said, these monitoring systems can be received negatively by employees, who prefer autonomy and want to feel that they are trusted. Employers should keep this in mind to find a balance between monitoring, ethical considerations, and employee satisfaction in the digital era.

Putting the puzzle back together

Once the tasks have been completed, the final step in the sequence is to combine their outputs. This can be facilitated by the use of big data, making it easier to combine interconnected output in an optimal way - a task that can be challenging for managers. The amount of data available also provides more choices for combining the different pieces. For example, before launching Disney+, Disney tested the waters to gain insight about the preferences of their subscribers and the market landscape. With this knowledge in their pocket,

they launched their streaming service with more confidence that it would be a success. They're far from alone: the digital transformation is increasingly boosting value creation by showing companies new ways to combine their products.

Practical guidance for firms

With great power comes great responsibility. The researchers identify key points that firms must take into account when undertaking their digital transformation:

- Document information flow processes in the production process: Ideally, a firm should consider implementing changes in the organization simultaneously to reap the full benefits of digitization. They should note how information, material, and finances flow in the production process, as digital tools are likely to impact this flow.

- Prioritize processes according to their permanence and potential to benefit from digitization: Consider which processes are most important - what is their output? Are they temporary processes or likely to be present long-term? How can digital tools help this process?

- Identify how digitization will benefit your company, tailoring your strategy and structure accordingly. Not all processes or departments will equally benefit from digital tools, so it's important to consider how they will be used. The structure and strategy will likely both develop over time as organization design adapts to the digital transformation, so firms need to be agile and update both as needed.

- Consider which activities and processes will boost your competitive advantage the most. Picture your firm in 10 years, and think of what will set it apart from the competition. Firms that don't keep up with the digital transformation will flounder, making this a huge challenge. What new processes and activities may pop up, and how can they use digital tools? How can you keep ahead of the competition? In the future, successful companies can likely thank their success on the type and the bundle of the complementary activities they offer, rather than solely on digital technologies themselves as more and more companies start to use them.

- If a process is strategically important and simple to digitize, do so quickly and commit to it. As mentioned above, prioritizing processes is important, and so is successfully pulling off the digital transformation. Timing is everything, so make the digital transformation a priority... but if a process does not need to be digitized right away (for example, if it's short term) and would be costly to digitize, focus on the key processes first. Dr. Khashabi notes, "late and safe is preferable to rushed and uncertain".

Invest in the quality of your people and in the quality of your data. It's also important to make sure that you have staff that is equipped to deal with these digital tools, so provide skill development programs as needed. It's also key to have high-quality data, and with data still not immune to user error or bias, highly qualified personnel are essential.

What's next for digital transformation?

While this transformation isn't new, it is picking up speed, and likely to gain even more ground in the near future. This makes it essential for organizations to understand how it can impact their processes and make a plan. The overview and directives provided here can inform decision-makers when planning their strategy and be used as a guideline for achieving their internal digital transformation.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge

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HOW MOBILE MONEY CAN HELP US UNDERSTAND ENTREPRENEURIAL DEVELOPMENT

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The benefits and disadvantages of economic growth have become an important point of debate in social, political and economic forums. On the one hand, it is argued that economic growth is necessary for both the sustenance of economic welfare and social wellbeing. On the other hand, economic growth can be associated with the degradation of ecosystems, including climate change, biodiversity loss, pollution, and the destruction of the natural resources on which our social and economic life depend. Finding new models in which economic value creation is decoupled from environmental degradation, or is associated with environmental and social improvement, has become imperative.

Regardless of whether or not economic growth and environmental degradation can be decoupled, it is certain that in our search for a different economic equilibrium, new entrepreneurial solutions and firms will need to be developed, replacing existing and outdated products, services and production methods. Engaging in Schumpeterian "creative destruction", entrepreneurial initiative may then trigger the de-growth of such economic activities, but hopefully accompanied with the emergence, and growth and scale-up, of novel, more desired economic activity. Different from overall economic growth, achieving ambitious and fast entrepreneurial growth is then not only desired, it is necessary to allow for creative and more sustainable solutions that we urgently need.

Entrepreneurial success, however, is not an easy feat to achieve. Entrepreneurship, by definition, is the development of opportunity when the existence of such opportunity is uncertain: even the best and most seasoned entrepreneurs and investors get it wrong more often than they get it right on the ideas they have for entrepreneurial opportunities. Furthermore, whether or not new entrepreneurial ideas actually lead to societally beneficial solutions is often difficult to anticipate, and governments worldwide are in the difficult position of both stimulating the emergence of new entrepreneurial activity and steering such activity in ways that align with overall societal objectives.

In a paper published in *Technological Forecasting and Social Change,* Jan Lepoutre and Augustina Oguntoye compared the emergence of mobile money in Kenya, and the massive success


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of M-Pesa, with the non-emergence of mobile money in Nigeria, to explore just why the same entrepreneurial idea can take off in one country and fail in another. The emergence of M-Pesa is a true intrapreneurial story (an entrepreneurial venture started within an existing company, in this case Vodaphone): an aspirational series of trial-and-error, resourceful and collective learning, surprises and pleasant discoveries. Yet for the venture to achieve the massive growth it has, it required both significant financial and regulatory support. Kenya and Nigeria, while countries with otherwise similar socio-economic and technological development, differed in their governmental ability to oversee and control the social impact and risks of this new financial innovation. While the Nigerian government was not opposed to mobile money, it lacked the capabilities and bandwidth post financial crisis to oversee an unknown financial activity. The Kenyan government, instead, was part shareholder of Vodaphone's Kenya subsidiary (Safaricom) where M-Pesa was being developed. As such, it was able to learn alongside M-Pesa about financial innovation and develop a regulatory framework with it.

The lessons this paper offers are not only of value for financial services in developing countries. The speed at which entrepreneurial ecosystems can deliver entrepreneurial successes depends on the ability – either individually or collectively– to absorb the costs of error, to turn errors into knowledge and intelligence, and to find solutions for the constraints of either. In the past few years, entrepreneurial ecosystems across the world have been inundated with financial capital, and the impressive increase in the number of unicorns, non-publicly traded firms of less than 10 years with a valuation of at least 1 billion dollars, shows just how fertile the soil for entrepreneurial growth currently is. Very often, however, the constraints for entrepreneurial success and growth are elsewhere, and resources other than financial ones are what stifles further development of opportunity: a lack of talent, regulatory or social legitimacy, raw material and more.

It is for this reason that at ESSEC Business School, we are massively investing in the development of talent that is able to read the economic environment in which opportunities are being developed, and has a strong understanding of the environmental, sociological, organizational, and human challenges that are involved in this process. By confronting students with these challenges early on, they are able to hit the ground running in the labor market and contribute faster to overcoming challenges in entrepreneurial and scale-up development.

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BETTER TOGETHER: HOW ENTREPRENEURIAL ECOSYSTEMS INFLUENCE STARTUPS

Christoph Endenich *is Associate Professor of Accounting and Management Control at ESSEC. His research focuses on performance measurement in knowledge-intensive settings (high-tech startups, science-tech incubators, aerospace and global audit companies), management accounting in multinationals and the ethical implications of management accounting and control. His work has been published in peer-reviewed journals. Prior to joining ESSEC, Christoph was a faculty member at IESEG and held visiting researcher positions at LMU University Munich, Bocconi University and IESE Business School. At ESSEC, he teaches and coordinates several courses on management control, entrepreneurial performance measurement, cost management and research methods at the Grande École, PhD, and Executive Education levels.*

Community is key - in business as in life. This applies to startups as well, as they benefit greatly from being part of an entrepreneurial ecosystem. These ecosystems can provide tangible benefits, like office space and funding, or less tangible aids, like mentorship and community-building. In new research published in *Contemporary Accounting Research*[1], Christoph Endenich (ESSEC Business School) and Sebastian D. Becker (HEC School of Management) explored how entrepreneurial ecosystems influence management control systems in startups, finding that these ecosystems tend to amplify a Lean Startup philosophy over a more traditional business plan philosophy.

The Lean Startup philosophy refers to an approach that "prioritizes experimentation over elaborate planning, customer feedback over intuition, and interactive design over traditional 'big design up front"[2]. Businesses employing this philosophy aim to shorten product development time and rapidly figure out if a model is scalable using a "build-measure-learn" (BML) feedback loop: build the minimal viable product, see what works (or what doesn't), learn from your mistakes and successes, and on to the next one. Originating in the Silicon Valley and popularized by Eric Ries, it's now the dominant entrepreneurial philosophy all over the world.

The researchers studied a set of early-stage startups in the greater Paris region, finding that the Lean Startup philosophy has had a major impact on their management control systems (MCSs). These startups were embedded in an entrepreneurial ecosystem composed of business angels, venture capitalists, business school professors and higher education institutions, incubators, and more. In short, it's a community that encourages collaboration and sharing experiences.

As Dr. Endenich explains: "This ecosystem acts as a meso-level mediator between macro-level social factors and startups on the micro-level, shaping how the latter runs their companies." The Greater Paris ecosystem in particular has extensive public funding and support, making it fruitful ground for entrepreneurship - and for research.

To gain a better understanding of how this ecosystem impacted embedded startups, they conducted several dozen interviews with both key ecosystem

players (such as business angels and higher education figures), Lean Startup thought leaders, and founders and managers of the startups in question. As these startups were typically around two years old, the management control systems being studied were the first they put in place.

These interviews revealed that incubators had a central role in the ecosystem, connecting startups and, according to interviewees, helping startups become “more efficient” and “scale up very fast”. The incubators also promote the fact that failure should be at minimum accepted and at best, valued - particularly novel, as many of the interviewees noted that such views are atypical for the French entrepreneurship environment, and as one noted, these views foster “startups that have trajectories that we didn’t see before”. The majority of the interviewees either directly or indirectly mentioned the Lean Startup philosophy and noted that it was encouraged by the ecosystem. Dr. Endenich summarizes; “It is the dominant entrepreneurial philosophy of the ecosystem and it has now been adopted by its startups”. It’s not necessarily a key to success - most will still fail - but that hasn’t impeded its popularity.

How has this happened? The researchers identified three key mechanisms:

- **Regulative mechanisms:** rules, procedures, incentives and sanctions that enforce certain conditions and practices. In this instance, the incubators already employ a Lean Startup philosophy and as such expect incubated startups to do the same before being integrated, and the incubator managers track their development closely with the expectation that they will achieve certain KPIs. Additionally, many of the incubators offered incentives for adhering to a lean management control system, such as software, tools and resources.

- **Normative mechanisms:** the values and norms that become social obligations. In this study, this took the form of educational and training curricula that instilled certain values, such as mentors, coaches, training and events. What’s more, ecosystem actors tended to disparage traditional business planning; as one participant said, “You need to drop any belief in planning systems…it is a wrong concept”. The startup actors responded eagerly, adopting the values of the ecosystem mentors as they wanted to do things differently than their entrepreneurial predecessors. There was also a specific set of lingo filled with Lean Startup buzzwords, like pivot, MVP, and traction, reinforcing the Lean Startup philosophy.

- **Cultural-cognitive mechanisms:** these are shared understandings, contributing to a shared identity. Here, this meant that there was a feeling of solidarity and ongoing knowledge sharing of best practices. The ecosystem also provided peer support and the incubators provided mentorship.

Together, these mechanisms reinforce startups’ tendency to adopt Lean Startup practices.

Lean Startup and MCSs: a recipe for success... or problems?

The researchers found that all the startups studied had MCSs in place and that they considered this essential for developing a scalable business model, since MCSs provide valuable information.

Namely, MCSs provide data on customer KPIs - needed for the "learn" part of "build-measure-learn". The Lean Startup practices might, however, mean that detail and nuance are sacrificed in favor of speed, and a lack of standardization. Further, as one participant notes, the Lean Startup methodology "is not a guarantee that people are asking themselves the right questions". Startups might focus on the wrong market or the wrong product, wasting time going through the build-measure-learn process. This can also make startups deviate from their original values and vision and lose sense of their initial goals.

The MCSs are also geared towards accelerating the BML loops, particularly in key entrepreneurial areas like product development, sales, and customer relationship management. In other words, they structure and accelerate a flexible learning process - useful when funds and time are limited resources. Even the software available is geared toward this. It's a fine line, though: startups need to monitor progress and quickly pivot to a new model, meaning their management control system must be flexible - an enabling MCS. In these startups, the MCSs develop gradually so that the needs and resources required at each stage of the startup is considered. This also makes their development a team effort, using horizontal communication tools. These are good and bad, since they facilitate both transparency - and control.

In sum, MCSs help boost accountability, transparency and collaboration, but can also boost institutional pressure. The ecosystem amplifies certain pressures and processes, through the mechanisms described above. While startups might be different in terms of their product, this study suggests that they operate in surprisingly similar ways thanks to their entrepreneurial ecosystem.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge

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EMPLOYEE ENTREPRENEURSHIP AND THE CREATION OF NEW VENTURES

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We tend to associate entrepreneurship with striking out on your own to create a new venture, but this isn't always the case. Employee entrepreneurship refers to new ventures created within their parent organization, often to benefit said organization with innovative ideas. Ha Hoang (ESSEC Business School) and Markus Perkmann (Imperial College London) examined physicians in the UK National Health Service (NHS)[1], looking at their relationship to their organization and how they transition to entrepreneurship while remaining part of the NHS.

Employee entrepreneurship ventures can be a boon to their employers, as a source of innovation[2], wealth[3], and increased organizational learning[4,5]. We know that employee entrepreneurship is good for business - what we know less about is the journey from employee to entrepreneur.

Examining employee entrepreneurship

To learn more about employee entrepreneurship, the researchers studied physicians in the UK's National Health Service (NHS) who participated in the Clinical Entrepreneurship Programme. The goal of this program was to support health professionals in pursuing their entrepreneurial dreams, with the hope of developing solutions that would benefit the NHS, but it supported the would-be entrepreneurs whether or not their project was directly linked to the NHS.

The researchers observed the aspiring entrepreneurs over the course of the program and interviewed participants, the clinician leading the program, and mentors. Using this data and survey data, the researchers explored key points of the venture founding process: motivation and steps taken, their relationship with the organization, and their personal goals and outlook.

They noticed that most of the ideas aimed to solve medical or health issues: a free teleconsultation service, easier access to clinical trials, better public health education for children,

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and more. The employee's orientation to their organization - how they felt about it - colored their efforts, with their orientation displaying two different facets. The first is their intentions: some participants reported an intent to innovate and create solutions to problems they'd noticed on the job, thereby improving the organization. These people wanted to take action to improve the NHS, and to identify opportunities that would allow them to do so. The second set of people displayed a close attachment to the organization, with it being a core component of their identity. These people identified with the values of the NHS and so wanted their project to improve its functioning.

Many of the aspiring entrepreneurs were driven to improve the NHS, fueled by their close affiliation with it. But it wasn't all smooth sailing: sometimes their efforts were curtailed by their responsibilities and a lack of resources and they needed to look outside the organization to achieve their goals.

Sometimes, these budding entrepreneurs felt that their efforts were hindered by their position, feeling a mismatch between their job and their innovation goals. When people felt this mismatch, they tended to also feel dissatisfied with certain aspects of the NHS, for instance perceiving a lack of support for innovation. For example, one person noted: "...people are just putting out fires, there's no time for improvement, there's no time for really restructuring". In response, many participants devoted themselves to activities outside their job description - but sometimes got pushback from colleagues who felt this was inappropriate.

If the NHS entrepreneurs had to break free of their prescribed role, they often also had to look outside the NHS for resources and mobilize their individual network both inside and outside the organization. Along with going beyond the boundaries of their official position, this represented a move toward founding a venture outside the organization.

This didn't mean they wanted to cut ties entirely with the NHS - quite the opposite. Typically, the budding entrepreneurs also maintained their membership in the organization. They tended to see the NHS as a source of inspiration and knowledge, and a way to gain valuable insight for their project. They were also motivated by the advantages of being affiliated with such an established organization, advantages they could capitalize on for the good of their venture, like reputation and respect. Even aside from these benefits, people were also keen to maintain professional continuity, recognizing the risks of halting their activities and becoming a full-time entrepreneur. Though working full-time presented challenges to their entrepreneurial dreams, they tended to still pursue it in their spare time rather than fully leaving the NHS.

This also had the advantage of letting people reflect on their job and in some cases, mold their role and their career trajectory to align with their new goals of simultaneously pursuing an entrepreneurial career alongside their career in the NHS.

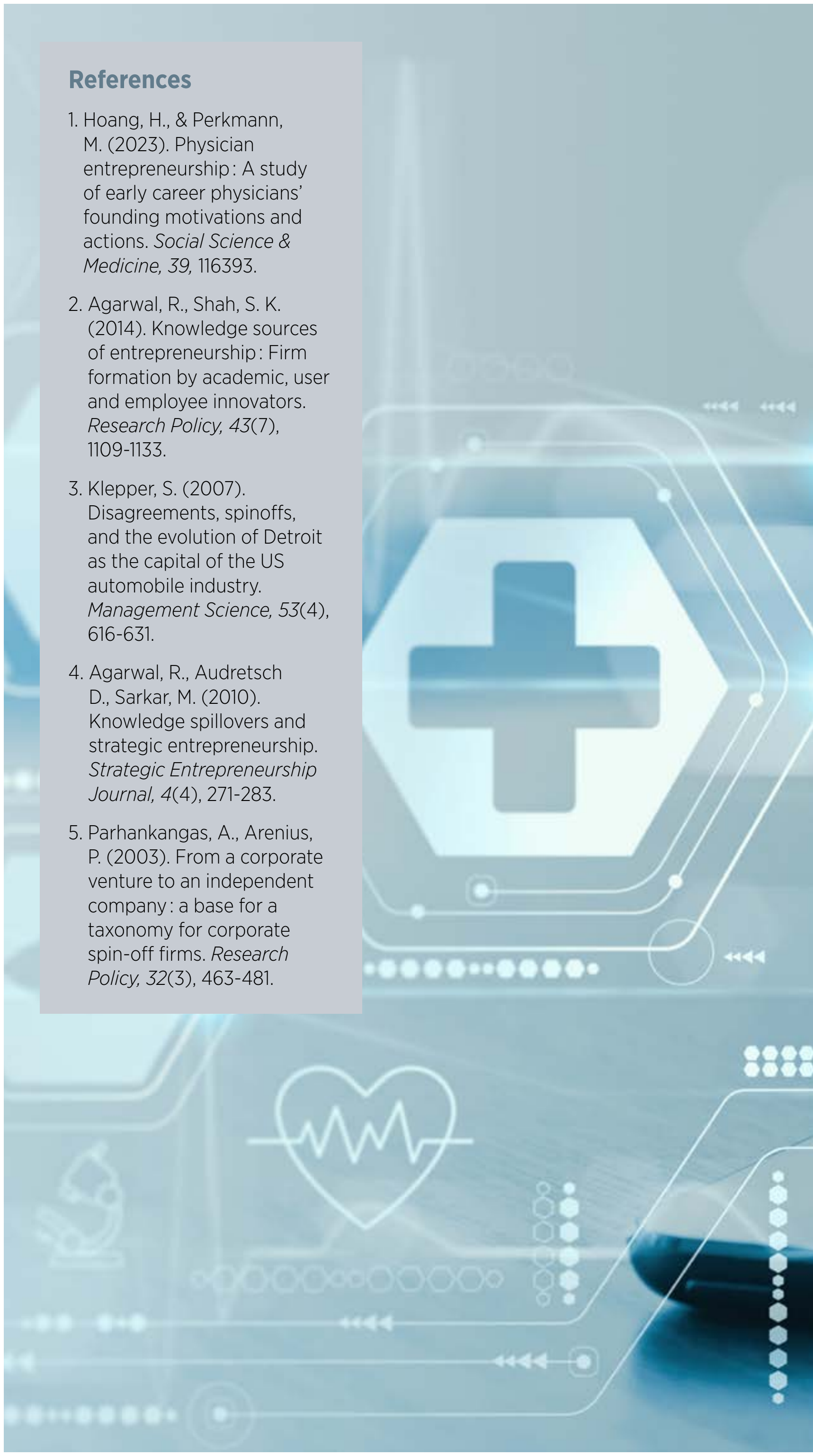
Staying close to the parent

This desire to remain affiliated with the NHS shaped their projects, with many designed to be interconnected with the organization. This played out in a few different ways. Some innovators saw their project being deployed within the NHS, with the NHS as a customer: for example, a new system for managing medical imaging reports. Another was to create solutions for the NHS patients, like a device that would facilitate home care. A third feature was for the NHS to serve as advisors, board members, or supporters, who would counsel and endorse the venture. Finally, some envisioned the NHS as a source of referrals for the venture. Though the interdependence played out in different ways, it was common for individuals to link their project to the NHS.

What does this mean for hybrid entrepreneurship?

Hybrid entrepreneurs are those that simultaneously create a new venture and maintain their previous employment. Much of the literature has assumed that entrepreneurs remain employed for financial reasons, but this research shows that identity is also a key driver. This means that people also develop complementary ventures that could address the needs of their organization. This has valuable implications for employers seeking to encourage entrepreneurial behavior. It shows that it is possible to pursue entrepreneurship alongside employment in the parent organization. To capitalize on this, employers could develop policies to support and promote interdependent ventures that will address challenges like conflicts of interest, intellectual property, and venture governance, as well as providing resources. Together, these findings suggest that employee entrepreneurship provides a valuable pathway to more innovative organizations, and that employees are willing to align their career and venture goals to continue their organizational membership while they pursue their entrepreneurial dreams.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge



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WHAT CAN BUSINESSES LEARN FROM SOCIAL ENTREPRENEURSHIP INITIATIVES?

Anne-Claire Pache *is Professor in Social Innovation at ESSEC. She is the chair holder of ESSEC's Chair in Social Innovation. She graduated from ESSEC Business School in 1994, holds a Master in Public Administration (2001) from Harvard University, John F. Kennedy School of Government, and a Ph.D. in Organizational Behavior from INSEAD (2010).*

Her research interests lie at the intersection of organizational theory and social innovation, with a particular emphasis on pluralistic environments, hybrid organizations, and scaling-up processes in organizations. She has conducted qualitative studies in the field of social enterprises, corporate philanthropy and private foundations. She has authored several books and articles, including in the Academy of Management Review *and* Academy of Management Journal, Journal of Business Ethics, California Management Review *and* Leadership Quarterly. *She served as ESSEC Dean for Academic Programs between 2014 and 2017 and is currently Associate Dean for Strategy and Sustainability.*

Before embarking on an academic career, Anne-Claire Pache was part of the co-founding team of Unis-Cité, a French nonprofit organization that pioneered youth civil service in France. She is still on the board of Unis-Cité today, as well as of an Impact Investment Fund.

Is it possible to have a positive social impact without sacrificing the bottom line? Anne-Claire Pache (ESSEC Business School), Julie Battilana (Harvard Business School), Metin Sengul (Boston College) and Marissa Kimsey (Harvard University) studied companies around the world that simultaneously pursue financial and social goals, finding that the most successful commit to creating economic and social value into their core organizational activities.

Social entrepreneurship refers to companies that use business logic in a novel way to address social needs, blending financial goals with social ones. A famous example is Veja, a company that sells sneakers made under fair trade and environmentally friendly conditions in small cooperatives in Brazil. This setup allowed them to embrace and achieve two goals: profitability as well as social and environmental impact. Often, profitability and sustainability can be in conflict, making it valuable for corporations to take notes from social businesses that have pulled off accomplishing both.

Corporations are increasingly being taken to task for their social impact and customers and stakeholders alike

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expect companies to change. This is easier said than done, since they often need to rework their business model to ensure long-term sustainability as well as profitability, leading them to abandon the former in favor of the latter. The fact remains that companies need to keep their finances in mind if they want to stay afloat, and indeed, the researchers found that successful socially driven businesses adopt a dual purpose: social good and profitability.

These dual-purpose businesses share an approach the researchers dubbed hybrid organizing.

This model includes 4 components:
1. Setting and monitoring social goals as well as financial ones
2. Structuring the organization to support both socially oriented and financially oriented activities
3. Hiring and training employees to take on both goals
4. Practicing dual-minded (social and financial) leadership

Setting and monitoring dual purpose goals

Organizations need to set both social and financial goals and measure their performance on both dimensions. This means having well-structured goals that explain a company's purpose to its stakeholders. To set successful social goals, it's important to do research: what are the needs the company wants to address and who are the beneficiaries? Goals must also be clear and enduring to achieve a long-term impact.

Setting dual goals is only half the battle: companies also need to monitor progress made on these goals. This includes identifying key performance indicators: simple for financial goals, less straightforward for social ones. The research process involved in setting goals will help companies identify a way to measure them. For example, Grameen Veolia Water, which aimed to provide safe, affordable drinking water and have sustainable operations, consulted academic experts and members of the rural communities they were serving and identified KPIs from their information-gathering process. Companies also need to foster a learning mindset, as it may be necessary to do some experimentation and adaptation to come up with the most relevant KPIs. Setting well-researched dual goals with measurable KPIs is a key component of a successful dual purpose company.

Structuring the operations

Dual purpose companies need to align their activities and their structure. To do so, companies should consider the kind of value an activity creates: social, economic, or both? If an activity creates both kinds, it makes sense to integrate the organizational structure, but if not, it's best to manage the activities separately. For example, an American company called Revolution Foods offers healthy lunches to low-income students. When they sell a meal, they fulfill a social purpose - supporting a child's health - and an economic one - earning money. In their case, it makes sense to integrate their structure, such that one manager is in charge of different tasks like business growth and promoting nutrition education, as educating children on healthy foods helps both their wellness and sales.

On the other hand, a French company, ENVIE, learned their lesson that sometimes a differentiated organization is best. Its purpose was to reintegrate people into the job market by hiring them to collect and repair appliances that were then resold, with the reselling activity creating economic value. It offered training for their employees in professional skills and appliance repair, helping them find new jobs. This did create social value - but it didn't help the bottom line. Initially, supervisors were asked to provide both social support and technical guidance, often struggling to do both. In the end, ENVIE's founders separated their organizational units with one for social support and another for technical skills, allowing them to generate both kinds of value more effectively.

Unfortunately, complications will still arise. This means it's important to create spaces for negotiation. These spaces are essential to give employees the tools to address and work through tensions. In doing so, they can find compromises between economic and social goals.

Hiring and training employees

For dual-purpose companies to succeed, they need to build a workforce with shared values, behaviors, and processes. This starts at the hiring process. The researchers identified three profiles of successful dual-purpose employees: hybrid, specialized, and blank slate. The hybrid employees have training or experience in both business and social value fields (think environmental science or social work), equipping them to understand and connect to both goals. They tend to do well in managerial and coordination roles. Another successful profile is that of specialized talent: this allows companies to benefit from someone's more in depth expertise and experience. This person is well-suited to middle manager roles in differentiated structures. However, someone who is highly specialized in a social field may not understand the business side of things, which can lead to tension and turnover especially in companies with a differentiated structure. To mitigate this, companies should make both goals clear to candidates from the outset of the recruitment process. The third kind of profile is the blank slate candidate: someone who has no social or business experience who is hired for an entry-level position and then trained to acquire the required skills and values. However, this requires a significant amount of training and can impact productivity, so they are best suited to entry-level roles that don't require too much training.

Regardless of an employee's background, their socialization is key, but it is challenging as it entails employees understanding, valuing, and eventually contributing to both the financial and social goals of the company. Some ideas for doing so include:

- Retreats where goals and values are explained and discussed
- Training sessions to remind employees how interconnected economic and social activities are
- Job shadowing programs to foster empathy and perspective taking
- The aforementioned spaces of negotiation, which can offer informal learning opportunities where people can ask questions and discuss tough topics

Promotion and compensation for excelling in embracing the company's values and accomplishing both social and financial goals. This also means equitable compensation within the company itself.

More generally speaking, it's critical for dual purpose companies to foster psychologically safe environments, where employees feel comfortable asking thorny questions and discussing complicated topics. This also helps employees feel that their contribution is valued and that the company is "walking the walk' in addition to talking the talk.

Dual-minded leadership

Leadership is essential to pulling off all of this. Specially, dual-minded leadership, that embraces both financial and social goals and deals with tensions head-on. It involves different leadership activities, including making decisions that embody dual goals and representing the dual goals of the company to the board.

Goals are one thing: decisions are another. Showing a company's commitment to dual goals involves deciding how to allocate their profits as well as taking actions that align with the company's values. Take Veja, a company that makes fair-trade sneakers: its founders committed to a zero-ad policy, which allowed for them to have reasonable prices despite high labour costs. They educated salespeople at major retailers about the social benefits of their product, reducing initial skepticism. . This is an example of a bold decision which helped them achieve both social impact and economic success but also showed employees and other stakeholders the leaders' commitment to their dual goals and highlighting their priorities. It also is proof that dual companies are able to avoid the trap of prioritizing profits over social impact if their leaders are truly committed to their dual mission.

The board is another important component of leadership, since the board acts as a guardian of the dual purpose. A diverse board is crucial, with both business and social expertise having a seat at the table. While this diversity is key, it can also engender conflict because of differing viewpoints. One way to address this kind of conflict is to have a chair or director that can bridge the gap between the two groups, helping them share information and come to a mutual understanding.

The dual purpose playbook

A dual purpose company can't control all external factors, however, and there are still roadblocks to success. These include the fact that creating shareholder wealth is still a priority in the business ecosystem, and that social ratings are not consistent across the board. While dual purpose companies face challenges and it is not necessarily an easy road to success, the four components identified by the researchers form a useful framework for setting up a dual purpose business that is designed to succeed. Companies wishing to serve a dual purpose should keep in mind those four components: setting and tracking dual goals, the organizational structure, hiring and socializing employees, and dual-minded leadership.

Article written with Julia Smith, editor-in-chief, ESSEC Knowledge

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CAN BEING PLAYFUL AT WORK HELP PEOPLE FEEL MORE AT EASE - AND MORE INNOVATIVE?

Anca Metiu *is Professor of Management and was previously Associate Dean for the Ph.D. program (2015-2021). Anca studies the dynamic processes through which teams and individuals engage in knowledge work. She is particularly interested in distributed and developing world work contexts, and in the work practices of new generations of workers. Her work has been published in journals such as:* Administrative Science Quarterly, Organization Science, Organization Studies, *and* Oxford Review of Economic Policy. *Her book* "The Power of Writing: From Letters to Online Interactions" *was published in 2012. She earned a BA in Law and Economics from the University of Sibiu, an MBA at the University of Illinois in Urbana-Champaign and a PhD in Management from the Wharton School of the University of Pennsylvania.*

Feeling safe and supported at work is beneficial for many reasons, including innovation. This feeling is called psychological safety: how people perceive what will happen if they take interpersonal risks. While there's been a lot of research on the benefits of psychological safety, less is known about how to foster its development. In a new study published in the *Journal of Product Innovation Management*[1], Anca Metiu (ESSEC Business School) and Jinia Mukerjee (Montpellier Business School) explore how playful behavior practices can generate psychological safety, namely through generating vulnerability and comradeship.

Psychological safety

When people feel comfortable speaking up and taking risks at work, that's when the magic happens: the magic of innovation, that is. This is why psychological safety is so key: it means that people can bounce ideas off each other, even if they aren't confident in their idea, without being worried about rejection or being judged.

This is good news for modern organizations, who need to be innovating constantly to maintain their competitive advantage. Innovation requires risk-taking, involves unpredictable outcomes, and tends to be a social process: this set-up requires psychological safety. In a psychologically safe atmosphere, people will be less concerned about their ideas being met with criticism or resistance, and they can be their authentic selves without damaging their self-image[2]. What's more, employees who feel psychologically safe will also be more comfortable in challenging superiors and taking initiative[3,4,5], which encourages creativity and helps prevent processes from getting stale or an "Emperor's New Clothes" situation, where leaders' ideas go unchallenged.

The good news is that recent research has suggested that psychological safety can be fostered through interactions between team members. The research team explored how play could be one strategy, as it encourages positive interactions between colleagues in a less formal, less structured environment.

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Playtime

"All work and no play makes Jack a dull boy" - but what if play can be integrated into the workday? Activities like telling jokes with colleagues or playing a round of table tennis are examples of non-task-related play: their primary goal is fun, they are voluntary, they aren't related to the task at hand, but they still take place at work. This is the kind of play that the researchers focused on (as opposed to looking at gamification of job duties, for example).

And why play? It's been linked to desirable outcomes like creativity, positive feelings, and commitment to the organization, to name a few[6]. One aspect that hadn't yet been explored was how play can positively influence processes that lead to innovation - and the researchers explored the possibility that this was through the development of psychological safety. When people "play" together, they tend to be more relaxed and freed from their work boundaries, which helps them develop trust and stronger interpersonal relationships[7]. Once they've got this solid base, it's likely easier to take risks and speak up - in other words, they feel psychologically safe, and can more comfortably engage in behaviors necessary for innovation.

The playing field

The researchers looked at the links between play, psychological safety, and innovation within an Indian high-tech innovation firm. Originally developed as a flight-search tool, this organization is now #2 in India in the online travel industry and has a strong culture of innovation. They also have a playful culture: in their open-office layout, employees often play video games, watch cricket, tell jokes, play table tennis, or come up with games on the cuff. Since it's an open office, everyone is privy to these playful moments. One of the researchers visited the organization several times, completing over 500 hours of fieldwork, using ethnographic research methods like observation and interviews and even taking part in the fun herself to better understand the process.

During the interviews, the researchers asked the employees questions about their perceptions of their workplace and work processes, what they thought about innovation and play, and impressions on working in groups and collaborations. They noticed a number of patterns emerging. One was that it was possible to break down each play episode into four steps: initiating play, amplifying play, spreading play (when others get involved), and engaging in demonstrative behavior (like getting up to dance or clapping - in other words, displaying happiness and enjoyment). Put together, these practices fostered vulnerability and comradeship, which in turn boosted feelings of psychological safety.

More specifically, the researchers noted five components of psychological safety that were bolstered by vulnerability and comradeship:

- Feeling safe to voice their ideas and opinions without worrying about what others would think .
- Mutual respect and believing in each other's potential and abilities.
- Sharing and receiving negative feedback and constructive criticism: employees were both able to share this kind of feedback, and did not get defensive when on its receiving end.
- Supporting each other in taking risks, making mistakes, and learning: employees felt that making mistakes is part of the learning process, and therefore didn't feel the need to hide mistakes or feel ashamed.

• Helping one another: seeking and receiving help was the norm, and help was given freely.

What's more is that these processes formed a positive feedback loop - increased psychological safety reinforced the play practices, which then boosted vulnerability and comradeship, which fostered psychological safety, and so on and so forth. These two elements formed a virtuous circle that encouraged innovation. There were four components of innovation that were helped along by increased psychological safety:

- Generating new ideas
- Finding new collaborators for projects
- Tackling tough conversations
- Increased effort devoted to completing complex projects

This information gives us a snapshot into how two important outcomes can be developed, namely psychological safety and innovation, through encouraging employees to get in touch with their inner child and play.

Practical implications

With innovation being key to maintaining a cutting edge, and psychological safety pinpointed as a factor that encourages innovation, it's helpful to organizations to understand how to strengthen both. Allowing and encouraging playfulness at work is one strategy - and managers should keep in mind that a key element of play is its voluntary nature, meaning company-enforced games are not the way to go. Managers can also turn to other tactics to encourage the vulnerability and camaraderie so key to innovation - by divulging personal information themselves, even if it's embarrassing, they establish a norm that it's okay to share. Comradeship can be encouraged with other team-building activities. Since the two work together, it's important to encourage both vulnerability and comradeship in the workplace.

Additionally, it's not sufficient to just put a foosball table in the breakroom - the organization as a whole needs to have a culture that encourages and supports play, including its work design and a commitment to innovation.

With our world in flux, organizations need to innovate constantly to update their offer for the 21st century customer. The organization highlighted in this research is both innovative and playful, and offers a new kind of organizational set-up that sheds light on how innovative work comes about.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge

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WOMEN HELPING WOMEN: DOES INVESTOR GENDER MATTER FOR FEMALE ENTREPRENEUR SUCCESS?

Isabelle Solal *is Assistant Professor of Management at ESSEC, where she teaches courses on entrepreneurship and organizational behaviour. Dr. Solal's research focuses on the mechanisms that lead to inequality in labor and financial markets. In particular, her work examines how gender shapes audience interpretations of market signals, impacting for example the allocation of investment capital to early stage entrepreneurs. Prior to joining academia, Professor Solal worked as an attorney in the areas of investment dispute resolution and sports regulation, as well as in management consulting. She holds a Ph.D. and a MBA from INSEAD.*

We tend to think of women supporting women as a good thing: we're all in this together, so why not give each other a hand? This has been touted as a strategy for reducing the gender gap in many areas, including entrepreneurship, but the jury is out on whether that support might come at a Isabelle Solal (ESSEC), and Kaisa Snellman (INSEAD) investigated the impact of investor gender on the success of female entrepreneurs, finding that in fact, pitches by female-backed female entrepreneurs are viewed as lower quality and the entrepreneurs as less competent, and that female founders who received funding from female venture capitalists were less likely to raise additional funding. The road to hell is paved with good intentions - and relying on female investors to support female entrepreneurs may have unintended consequences.

Women in entrepreneurship

Women are still underrepresented in many traditionally male-dominated fields, entrepreneurship being one such field. Policy-makers, scholars, and the press alike have developed different solutions, ranging from legal ones like affirmative action or gender-blind recruitment and selection processes. One solution that has been put forward is to encourage women who have "made it" to support other women through networking, mentoring, sponsorship, and even financial support. While same-gender support in other fields has been shown to have certain psychological benefits, we need to better understand its effects on audience perceptions, especially in a domain like entrepreneurship where perceptions play a significant role.

Recent research has examined whether the presence of female investors increases the likelihood that female founders receive funding. This may be because women and men alike tend to support their own gender, or because women are actively aiming to boost other professional women. This gender homophily has been linked to strong trust and better communication in past research. Despite these potential benefits, there could also be unexpected consequences for the female entrepreneurs who receive help from female investors. Why? Other observers might make biased inferences about the relationship, for example assuming

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that the female investors offered funding to the female entrepreneurs simply because of their gender and not they deserve it- a perception not wapplied to male investors funding male entrepreneurs. This can take a toll on how the female entrepreneurs' competence is perceived, potentially resulting in difficulty accessing resources or lower performance reviews. Dr. Solal and Dr. Snellman explored this question using experimental and field data.

What happens when female investors support female entrepreneurs?

In the first part of the study, the researchers studied field data from early-stage startups in the United States. Since young startups need a significant amount of capital, they will seek out investments from venture capitalists who then take a minority stake in the business. This type of funding is done in rounds, depending on the firm's development stage and funds required, and so venture capitalists will not provide startups with all necessary capital in the first round due to the high failure rate of new business ventures. Using data from Crunchbase, which has a wealth of information gathered from various sources including the media, VC firms, entrepreneurs, and investors, they examined firms that received a first round of VC funding between January 2010 and April 2018, for a total of 290 female-founded firms out of a sample of 2136.

They found that female-founded firms who received first-round funding from female venture capitalists were two times less likely to receive additional funding compared to female-founded firms that received funding from men, a phenomenon that was not seen in male-founded firms.

Building on their initial findings, the researchers recruited 134 MBA students from a prestigious business school and had them watch one of four pitch videos, featuring either a male or female entrepreneur, backed by either a male or female investor. They then rated the pitch's quality and the entrepreneur's competence: the results revealed that pitches by female-backed female entrepreneurs were seen as lower quality compared to other conditions, and that these lower ratings were linked to perceptions of the entrepreneur's competence. This result was only seen for the female investor x female entrepreneur pitches - not, say, the male entrepreneur x male investor pitches.

Taken together, the results indicate that female entrepreneurs who receive funding from female investors are likely to be perceived as less competent and to be less successful in raising capital past the seed round.

What does this mean for female entrepreneurs and female investors?

While we can agree that women supporting women can be beneficial, this study highlights the fact that same-gender support can have negative consequences in some situations. In entrepreneurship, where early funding decisions hinge on how potential investors perceive the founder, female entrepreneurs who received funding from female VCs are seen as less competent since observers are less likely to believe that they received the funding due to merit. These women then go on to raise less funding.

Policy implications: inclusive investing

Female entrepreneurs may face challenges growing their business if they don't have a male investor. Additionally, female investors may be pigeon-holed if they are seen as only investing in female-led businesses. As a result, initiatives encouraging women to support women may negatively impact both parties and put undue pressure on women. ew initiatives should focus on encouraging inclusive investing, where men and women work together to support female entrepreneurs.

Entrepreneurship is a male-dominated field, and while efforts to reduce the gender gender gap by encouraging women to support female entrepreneurs are well-intentioned, they may unintentionally backfire in some instances. This suggests that working toward gender equality in entrepreneurship needs to be a team effort, undertaken by men and women alike.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge

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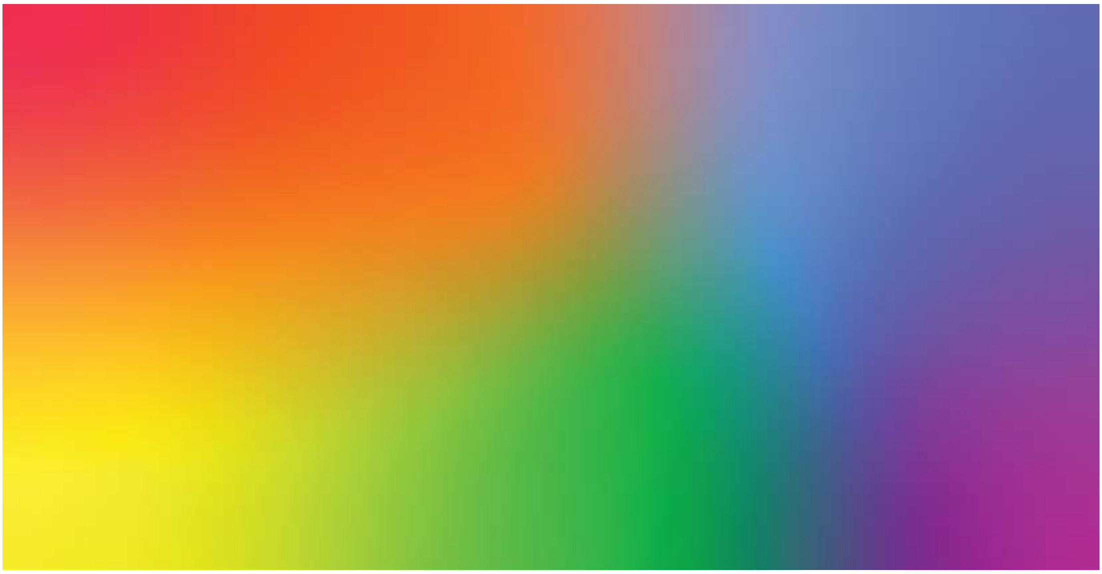
HOW DO ANTIDISCRIMINATION EMPLOYMENT POLICIES IMPACT ENTREPRENEURSHIP?

Raffaele Conti *is Professor and holder of the CY chair of excellence in Strategy and Innovation. He received a Ph.D. in Management from Bocconi University and a M.Sc. in Economics from Pompeu Fabra University. His research interests focus primarily on how institutions affect innovation, entrepreneurship, and, more broadly, the economic behavior of individuals and organizations. He has been elected as representative-at-large of the Knowledge and Innovation Division of the Strategic Management Society. He is a member of the research committee of the Technology and Innovation Management Division of Academy of Management, and he was part of the research committee of the Strategy Division of Academy of Management. He currently serves as Associate Editor of* Management Science *and of the* Strategic Management Journal.

Haven't we all dreamed of being our own boss at some point or another? Entrepreneurs make this dream a reality, striking out on their own to found an independent business venture. This makes the factors impacting someone's decision to leave paid employment and become a founder an interesting question, including institutional factors such as regulations and policies that could encourage or discourage entrepreneurship. When making such a decision, an individual will consider their circumstances, which includes comparing life as an entrepreneur to the conditions they have as an employee. This means that regulations impacting how inclusive and equitable the working environment is can have a significant impact on someone's decision to become an entrepreneur, a possibility that has not been thoroughly researched. In recent research[1] published in *Strategic Management Journal,* Raffaele Conti (ESSEC Business School), Olenka Kacperczyk (London Business School) and Giovanni Valentini (IESE Business School) were particularly interested in the effects of regulations enacted in order to combat discrimination at the workplace, on the basis of race, sex, sexual orientation, gender identity, disability, pregnancy, religion, age, and more on startups. The researchers focus in particular on the effects of the Employment Non-Discrimination Acts (ENDA) in the United States. This legislation included employment protections for sexual orientation and gender identity, the focus of this study. It was also introduced progressively in 15 states between 1980-2006, so that the researchers could study its impact as it was implemented.

Regulation, discrimination, and innovation

Who becomes an entrepreneur? Much ink has been spilled examining individuals' motivations to become founders, mostly studying individual and organizational factors. Lately, researchers have turned their attention to the study of the institutional environment (which can be the workplace) and especially changes in the institution, and how the characteristics of the institution impact people's decision to become an entrepreneur. This research has largely focused on institutions that appeal to prospective founders, for instance by providing access to



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resources for launching a new business. However, resources are not the only factor impacting someone's decision to strike out on their own: it's a big decision to leave salaried employment for a risky new business. So it makes sense that past studies have found that people are more likely to become entrepreneurs when the alternative, salaried employment, is less appealing, and vice versa[2].

How do legislations that protect against discrimination come into this, then? These laws protect their employees from discrimination, with the aim of improving workplace conditions and providing an equitable environment. The researchers studied the effects of the Employment Non-Discrimination Act at the state level. To gather data on entrepreneurship, they studied the number of new firm filings in states following the enactment of the ENDA between 1980 and 2006. They found that indeed, when the ENDA was enacted, employees were less likely to strike out on their own and found a new venture: there were fewer new ventures following the implementation of the ENDA in a given state.

Quality over quantity: while there were fewer ventures, the new ones were of higher quality. They measured quality in three different ways, the first being by the number of patent applications by young firms in a given year. Firms that file for patents are likely to 1) have superior technology and 2) seek to capture the value of their technology, and having a patent portfolio has been linked to firm survival[3,4]. This makes patent filings a suitable proxy for quality. The researchers also used the amount of venture capital raised as a proxy for quality, since funding is also linked to growth potential and quality. The third proxy for quality was their survival chances, measured by the proportion of startups created in a given year that survived for at least five years. They found that indeed, following the implementation of the ENDA in a given state, startup quality was higher in that state, with more patent filings and venture capital raised for those startups. The ENDA also had a small but significant effect on firms' survivability.

They also found that the effect of antidiscrimination laws was even stronger in states where LGBT populations are larger and where discrimination levels tend to be higher, as measured by the number of civil rights suits. In these cases, there were again significantly fewer new firms - but higher quality ones.

Does it matter who the founder is? The researchers looked at startups founded by all minorities (not only the LGBT population) and found that there were fewer new startups founded by members of minority groups. This can likely be traced back to improved work conditions at salaried employment, making members of minority populations less likely to transition to a founder role. Delving deeper into individual traits, they conducted an experiment with over four hundred US-based employees, finding that those who were put into a scenario where their employer enacted ENDA policies reported that they would be less likely to leave their job to be an entrepreneur and that they felt more satisfied with their employer. This suggests that antidiscrimination policies increase the appeal of the workplace.

The researchers also explored antidiscrimination policies at the firm level. They found that firms in states that enacted the ENDA were more likely to adopt antidiscrimination, pro-diversity practices, such as LGBT antidiscrimination programs or progressive LGBT policies - interestingly, these firms also displayed higher corporate social responsibility scores as well. The pattern was again replicated here: these policies were associated with fewer new ventures, but higher new venture quality. This indicates that the ENDA impacts firm policy, and that this firm policy also impacts entrepreneurship behavior.

Research and policy implications

We can agree that antidiscrimination policies are a positive step, but it is also useful to empirically examine the tangible effect of such policies. In this study, Dr. Conti and his colleagues explored the effect of ENDA policies in a new way by examining how such policies impact entrepreneurship. Their findings show that antidiscrimination policies increase the appeal of the workplace, making employees less likely to leave paid employment when they feel protected by their workplace and resulting in fewer new ventures, but that the new ventures that were founded were of superior quality. This suggests that antidiscrimination policies can not only improve the worklife of minority populations, but can also improve entrepreneurship quality, a novel finding and useful information for policymakers seeking to improve employment conditions and entrepreneurship quality alike. This also shows that keeping employee welfare in mind is beneficial for building a clearer understanding of how institutional policies impact new firms. Quality over quantity: antidiscrimination policies can keep current employees satisfied in their roles, and improve the results for those that do decide to step into a new business venture.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge

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EXPLORING THE INTERSECTION OF SEXISM AND ABLEISM IN THE LABOR MARKET

Estefania Santacreu-Vasut *is Associate Professor of Economics at ESSEC and THEMA. Her research focuses on gender and institutions and has been published in outlets such as the* Journal of Development Economics, Journal of Economic Behavior and Organization, *among others. She is a consultant for the OECD, co-founder of the Gender & Finance project and the co-author, together with Tom Gamble, of the book* The Nature of Goods And The Goods of Nature: Why Anti-Globalization Is Not The Answer.

Recent years have seen increased discussion about fighting discrimination in all forms, including types of discrimination that have previously flown more under the radar, like ableism (discrimination against those with disabilities). We are also more sensitized to intersectionality theories, which explain how social identities (like gender) reinforce each other. We are all much more than a sum of our parts, and our different experiences shape who we become and how we experience the world - and how the world treats us. In a new study, Estefania Santacreu-Vasut (ESSEC Business School) and Huali Wu (PhD Candidate in Economics at ESSEC Business School) explore the intersection of disability and gender in the Chinese labor market, finding that disabled women had the lowest annual earnings and that this could be traced back to being disabled and a woman - and that this effect was greater than the sum of disadvantages from disability and gender.

Disability and gender: 1 + 1 does not equal 2

In France, the government estimates[1] that 5.7 million people - 14% of the working population - live with a disability. With an aging population and more chronic diseases (including long Covid), this number could increase in coming years. Disability is not only damaging to one's health, but also to one's economic prospects. European Union data[2] estimates that 21.1% of the population with a disability faced poverty, compared to 14% of the able population. Data also suggests that this tends to be worse for women, with a 2018 British study[3] showing that median hourly pay figures were £13.2 for non-disabled men, £11.67 for disabled men, £11.05 for non-disabled women, and £9.93 for disabled women (Office for National Statistics, UK). Are disabled women exposed to an extra penalty, beyond the sum of penalties associated with gender and with disability?

To explore and quantify the intersection of disability and gender, the researchers provide a conceptual framework, as existing empirical literature in economics tends to treat sexism and ableism separately. This is likely due in part to the

difficulty of exploring and empirically quantifying intersectionality, but it is essential information so that policy-makers can draft policies that benefit vulnerable populations at the lowest cost.

The research team used an inter categorical approach to compare outcomes for different combinations of identity dimensions, for example comparing disabled women with non-disabled women, disabled men with non-disabled women, etc. This allows for a more complete picture of how both gender and disability impact people's experiences. Using statistical methods, they were able to break down how much of the differences in labor earnings was attributable to different factors, like disability and gender but also factors including education, origin, and occupation. They compared the outcomes for different groups to the earnings of non-disabled men - the reference group. By comparing outcomes, it's possible to understand the "intersectionality penalty" - what happens when you have multiple identities that face discrimination.

The case of China

To look at this in the "real world", the research team studied the Chinese labor market, as inequalities due to gender and disability are drastic. It's a particularly interesting case as there are 85 million disabled people in China as of 2019[4], a large gender wage gap, and fewer policies to combat sexism and ableism. They used data from the 2010 China Family Panel Studies[5] - a biannual, longitudinal survey run by the Institute of Social Science Survey of Peking University. To measure disability, they examined whether individuals reported they could do certain activities independently (like walking 300 meters, cooking, taking public transportation, and household chores): if they answered no to these questions, they were classified as having a disability.

As they predicted, non-disabled men had the highest average earnings and the highest rates of advanced education. They found that disabled women had the lowest salaries and experienced the most discrimination on the job market. They also had the least education and were largely in lower pay jobs and living in lower-income areas. Disabled women faced significant barriers to access even middle manager jobs, while disabled men bumped against this glass ceiling when it came to senior manager jobs. Additionally, disabled men with similar educational backgrounds and jobs to non-disabled men earned similar income levels, but this was not the case for disabled women.

What's more, even after statistically controlling for education, occupation, and industry, disabled women still faced a wage gap, suggesting the negative effect of ableism and sexism in play. With non-disabled women also facing a significant wage gap, the data suggests that gender discrimination was stronger than ableism - this is where the intersectionality penalty comes into play. This demonstrates the importance of taking people's different social identities into consideration to get a full picture of how our multidimensional identity impacts our lives.

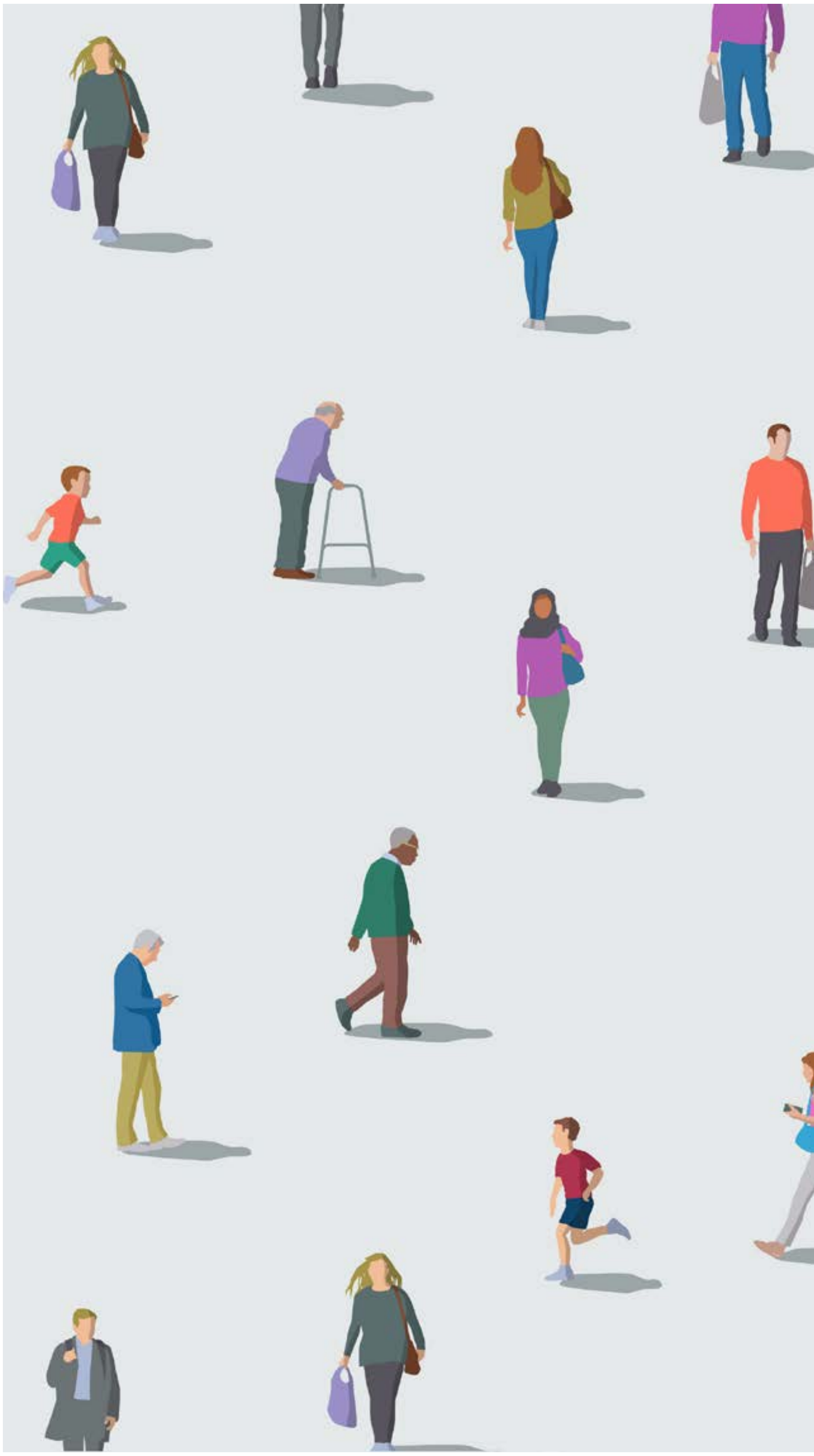
Takeaways

- Policy-makers should consider intersectionality when drafting policies to ensure just outcomes for all citizens- and gender identity needs to be part of the package.

- Initiatives for integrative disabled people into the workforce need to take gender into account, rather than being gender-blind, given the additional obstacles disabled women face.

- While policies should include skill-building support for disabled individuals, this is not enough to eliminate the pay gap, and so policies should also address the "demand" side of the equation by having legislation that focuses on employer hiring and promotion practices.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge



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SOCIAL ENTREPRENEURSHIP

__Stefan Linder__ is Associate Professor and Head of the Accounting and Management Control Department at ESSEC. He teaches in the BBA Program, the MiM Grande Ecole, Executive Education, and Ph.D programs. In his research, he studies the role of management accounting and control (MAC) systems for intrapreneurial behaviors, for (the prevention) of undesirable and unethical behaviors, and for the well-being of managers and employees subjected to exactly these MAC systems and how a non-maleficent, humanistic internal control can be designed. His work has been published, among others in, European Accounting Review, IEEE Engineering Management, Journal of Banking & Finance, Journal of Business Ethics *and* Journal of Management. *Prior to returning to academia, he worked as a management consultant.*

Improving society requires a collective effort, and social entrepreneurship aims to do its part: it refers to individuals and organizations that use business to tackle a societal issue. The concept has been around since the 1950s, but has only begun to garner significant research attention in the last decade. The rapid growth and emerging nature of social entrepreneurship research, coupled with the fact that social entrepreneurship builds on different disciplines and fields (entrepreneurship, sociology, economics, ethics) have led to a disjointed literature without dominant frameworks.

Professors Tina Saebi (Norwegian School of Economics), Nicolai Foss (Copenhagen Business School) and Stefan Linder (ESSEC Business School) analyzed existing research to develop a framework and outline future directions, highlighting the need for a holistic approach.

What makes social entrepreneurship unique?

What sets social entrepreneurship apart from other related phenomena like CSR, philanthropy, and sustainability? Saebi, Foss, and Linder focused on identifying commonalities among the existing definitions.

They found that social entrepreneurship's hybrid nature sets it apart. Commercial entrepreneurship focuses on the economic side of creating value: opportunity identification, resource mobilization, etc. In social entrepreneurship, profitability goes hand-in-hand with solving a social problem.

Similarly, social entrepreneurship differs from CSR in that the latter is an extension of a firm's traditional business activity to reach out to its stakeholders and increase profit. Charitable and not-for-profit organizations are also different, because their funding is usually from external sources. Consequently, their social initiatives do not compete for resources with profit-seeking ones.

As such, the researchers explored the idea that "the dual mission of social and economic value creation reflects the core characteristic of social entrepreneurship" (Saebi et al., 2019, p.72).

Classifying social entrepreneurship

Social entrepreneurship can be classified according to its social and economic missions.

The social dimension is whether or not the beneficiaries are active participants in the social entrepreneurship's model. Aravind, which offers free vision care in rural India, is an example where social value is created for the beneficiaries. In the other model, value is created with beneficiaries, such as Unicus, a Norwegian consultancy that employs people diagnosed with Asperger's syndrome.

The economic dimension is the extent of integration of social and commercial activities. For example, commercial activities may subsidise social ones. Alternatively, social activity captures economic value, as in the case of award-winning Grameen Bank, which provides collateral-free small loans to the rural population in Bangladesh.

Combining these two dimensions creates a four-quadrant matrix, illustrated in Figure 1.

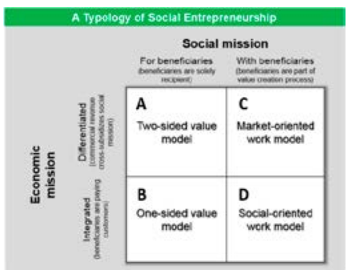

Figure 1. A typology of social entrepreneurship.

In Quadrant A are social enterprises with a 'two-sided value model', such as TOMS shoes, which gives one pair of shoes to a child in need for every pair purchased. In Quadrant B, enterprises employ beneficiaries to produce goods or services sold in the commercial marketplace. For example, British restaurateur Jamie Oliver trained and employed disadvantaged youths in his restaurant and funded the training program with the revenue. In Quadrant C, the beneficiaries are paying customers. Last, in Quadrant D, is when the beneficiaries are both internal and external customers—VisionSpring sells quality eyewear at affordable prices and also employs them in sales and distribution.

To shed light on the multi-faceted nature of social entrepreneurship, the researchers examined 395 articles, focusing exclusively on social entrepreneurship and excluding articles on sustainable, developmental, institutional entrepreneurship, or entrepreneurship in general. The researchers identified the factors that affected social entrepreneurship at three distinct levels—individual, organizational, and institutional—and gaps in the research.

As management phenomena are often multidimensional, the researchers developed a multistage and multilevel framework to integrate the various levels of analysis. Drawing on theory, this is divided into 2 stages—before and after the venture is formed.

With this framework, the research team linked the effect of the macro-environment and the individual's goals and beliefs (situational mechanisms), the effect of these goals on individual behavior (action-formation mechanisms), and the effect of these in bringing about broader changes (transformational mechanisms).

These describe the relationships that affect the three levels of analysis. Pursuing these mechanisms further, both before and after the venture's creation, is necessary to fill existing research gaps and to find out what makes social enterprises tick.

Breaking down the levels of analysis

At the individual level, theory suggests that a key trait of social entrepreneurs is a prosocial personality (the inclination to empathize with others), coupled with qualities that promote an entrepreneurial spirit, like self-efficacy and work history with social organizations.

The difference is between action and intent. Social entrepreneurs need to seek resources, gain support, and act to form their ventures. It is also of interest to study how the entrepreneur creates value after getting the go-ahead by examining organizational-level factors at the venture formation phase.

Organizational-level analyses have focused on the ability to finance a venture, the importance of networking, and marketing capability. Given the case-based nature of this research, little is known about the common features that can make or break a social venture, and whether these factors are different for commercial ones.

The hybrid nature leads to rifts that need to be addressed for the venture to thrive. This can be done in various ways, such as hiring managers who embrace this hybridity. Social entrepreneurship's mandate requires examining existing kinds of social ventures and potential problems.

Other questions include the link between the type of venture model and the legal and organizational structure, venture management, the choice of a particular model, and the impact of model choice on venture success.

Research shows that when the private sector does not meet societal demands, social enterprises are formed. These tackle a wide range of problems, including reducing poverty, empowering women, and inclusive growth.

Measuring the impact of different kinds of social ventures varies between ventures, but all social ventures share the same broad goal: addressing a social problem while remaining profitable. To this end, it is imperative to develop a common framework to gauge and assess the effectiveness of such enterprises. This void can be filled by institutions, which social enterprises can work in and with, and thus establish key metrics accepted by academia and applicable to multiple contexts.

What's next?

Individuals can have a big impact, and they are influenced by personal experience, which impacts the role they want to play, the problem they want to solve, and their ability to identify an opportunity and take action. More research is needed to understand how exactly an individual impacts a venture and the process they follow.

Research has largely focused upon individuals rather than entrepreneurial teams. This leaves a gap in research on how team dynamics affect the kind of social mission selected, design of the social venture, motivation, and the ability to secure funding and translate thought into action. It's also critical to study how different levels, like individual and organizational factors, interact with each other.

The pre-launch process is only the beginning. As such, more research and practical knowledge are needed on the relationships between individual motivations and the social value created, especially given the decision and resource conflicts that can arise from the model's hybridity. It is also key to analyze how other incentives, such as certifications for ventures that conform to high standards, may affect motivation.

As these ventures require teamwork, it is important to study social entrepreneurship on the organizational level, for example, using an ethnographic perspective. This means studying issues that shed light on the human side, like organizational hierarchy, communication skills, and task delegation.

The big picture

More work is needed to understand potential negatives to social entrepreneurship, but we must not lose sight of the bigger picture: social ventures exist to improve society, one step at a time.

To this end, research should also look at if and how these ventures change society by creating value rather than redistributing it from one group to the other. The framework outlined here provides a basis for future research and for social enterprises to help build our understanding of social entrepreneurship.

A version of this article was first published in the Council of Business and Society.

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HOW EVEN SUBTLE WORKPLACE DISCRIMINATION CAN UNDERMINE OUR SENSE OF SELF

Karoline Strauss *is Professor of Management at ESSEC and Chair Professor of the ESSEC Sports Chair. She teaches Organizational Behavior and Human Resource Management across different programs. Her research focuses on employee performance, motivation, leadership, careers, and well-being. She is particularly interested in how people shape their own future, and the future of their organization, such as by contributing to innovation or sustainability. Her work has been published in journals including* Journal of Management, Journal of Applied Psychology, *and* Human Resource Management. *She serves on the editorial boards of* Journal of Applied Psychology, Journal of Management, *and* British Journal of Management.

Diversity and inclusion are global priorities, and there's evidence that authenticity at work can impact well-being: this points to the importance of a workplace where employees feel welcome and comfortable being themselves. To make this happen, this points to the importance of a workplace where employees feel welcome and comfortable being themselves. To make this happen, we need to have a better grasp of what happens when "who we are" is called into question. Researchers call this experience "identity threat". Identity threat can result from discrimination at work or certain types of organizational culture, and it can lead to burnout and turnover. Using their newly developed scale in an article now published by the *Journal of Applied Psychology,* Karoline Strauss (ESSEC), Maïlys George (former PhD candidate at ESSEC and now Assistant Professor at EDHEC Business School), Julija Mell (Rotterdam School of Management) and Heather C. Vough (George Mason University) studied how people react to identity threat and pinpoint the triggers and outcomes of these threats[1].

When someone asks who you are, what comes to mind? The answers form your identities, and you can hold multiple identities at the same time. It encompasses how we perceive ourselves, and can be related to our demographic characteristics, our relationships, or our societal roles. For example, you might identify as a woman, as a leader, as a lawyer, as a friend... When you experience an "identity threat", it means that "who you are" is in question, which can be a destabilizing experience. This can have far-reaching consequences beyond the affected person, and even impact the organization and society at large.

Dr. Strauss and her colleagues developed a scale to measure identity threat, and then studied identity threat in samples of pregnant female leaders and professionals who identify as part of the LGBTQ+ community. By better understanding how identity threat plays out, organizations can recognize when it's occurring in their midst and react quickly.

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Leading while pregnant

Pregnancy can be a challenging time for professional women, and not just for the clear health reasons: pregnant women often experience discrimination and a lack of support in the workplace. Pregnant leaders may face additional issues, since people often associate leadership with "stereotypically masculine" traits[2] and many pregnant women are concerned that others will treat them differently because of their pregnancy[3].

This can mean that women may experience a threat to their leader identity while pregnant. After studying almost 200 pregnant women in leadership roles at two time points, looking at how their experience has changed since becoming pregnant, the researchers found that when pregnant women experienced unsupportive workplaces, they tended to feel higher levels of identity threat. Feeling that their leader identity was valued less by others and that they may no longer be able to express their leader identity was linked to women's emotional exhaustion. Women who felt that the meaning of their leader identity was under threat were also more likely to want to give up their leadership role altogether.

The LGBTQ+ community

Members of the LGBTQ+ community still face both covert and overt discrimination in the workplace, ranging from micro-aggressions to more blatant discrimination. It can also be complicated to navigate at work: research from ESSEC professor Junko Takagi found that it's something new graduates take under consideration during their job search[4]. Using their novel identity threat scale, Dr. Strauss and her colleagues found that individuals who experienced discrimination often also felt that their LGBTQ+ identity was under threat, which in turn left them feeling emotionally drained and considering leaving their job.

These findings suggest that the consequences of identity threat stemming from workplace discrimination can be severe, and include emotional exhaustion, burnout, and intentions to quit one's job or profession. This could mean that talented people leave their company or even their profession entirely, and it may lead to a brain drain if companies do not cultivate a supportive environment.

As more and more organizations are implementing diversity and inclusion policies and training, the new measure of identity threat the researchers developed could help these initiatives be more effective by assessing changes in identity threat levels before and after such initiatives – therefore also making companies more accountable. This can even be done at a lower level, by individual managers who want to support their team members and evaluate the impact of a given change initiative.

When employees experience identity threat, it can have implications for both the individual and the organization. This means it's key for researchers and employers to understand identity threats to better support employees and make it possible to safely bring their whole self to work.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge

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WHEN PUBLIC TRANSPORT DELIVERS

Diego Delle Donne *is Assistant Professor at ESSEC. He holds a Computer Science degree and a PhD in Computer Sciences, both from the University of Buenos Aires (Faculty of Natural and Exact Sciences), Argentina. His main research interests cover topics around combinatorial optimization, applied mathematics, linear integer programming and graph theory. He is currently working on a project focused on the development of optimization algorithms for a Last Mile Delivery problem which tries to profit from the public transport capacity surplus on non-peak hours for its use in freight delivery within the city. In particular, the project aims to reduce CO2 emissions and traffic in big cities. Previously he was Assistant Professor at the National University of General Sarmiento and a teacher at the School of Sciences of the University of Buenos Aires.*

Ivana Ljubic *is Professor at ESSEC Business School. Between 2017 and 2021, she was the academic director of the ESSEC & Mannheim EMBA program. She teaches Decision Analytics, Optimal Decision Making, Operations Research, and Supply Chain Management. She has been a professor or visiting scholar at the University of Vienna, the Robert H. Smith School of Business, TU Dortmund, TU Berlin, and Dauphine University. Ivana teaches and researches the role of Business Analytics in decision-making in the era of Big Data and AI. She obtained a PhD in Computer Science from the Vienna University of Technology, and a habilitation in Operations Research from the University of Vienna. Ivana has published more than 70 articles in leading scientific journals in operations research and management science.*

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E-commerce is now part of the consumer experience – why brave a busy mall when you could get your shopping delivered to your doorstep, and return it for free if you don't like it? This trend has exploded: in the US, e-commerce consumer spending is projected to reach one trillion USD[1], and in China, over 40 billion packages were delivered in 2017[2]. While undeniably practical for the consumer, this presents challenges for the companies and for the environment, since consumers expect fast delivery and this can be a costly process. This results in an abundance of commercial vehicles traveling to make home deliveries: an unsustainable system both in terms of feasibility and environmental impact. These commercial vehicles add to pollution and traffic congestion. ESSEC professors Diego Delle Donne, Laurent Alfandari, Claudia Archetti and Ivana Ljubic, all from the Department of Information Systems, Decision Sciences and Statistics, are exploring the challenges of delivery logistics in an ongoing research program. They've explored the challenges of last-mile delivery (the last leg of the distribution process) and how emerging technologies, including AI, can play a role in reducing the pollution caused by urban freight transportation.

In their latest paper published in *Transportation Research Part B*[3], they explore the possibility of using "freight-on-transit" delivery methods: using public transportation to transport packages in big cities.

Various solutions have been trialed to face the challenges, related to reduce the cost and environmental impact associated with e-commerce and especially last-mile delivery:

- Pickup points: a widely used solution in France, where you can pick up your package at your local boulangerie or flower shop, as long as the store is a partner,
- The use of drones or self-driving autonomous robots, or
- Crowd-shipping apps (leveraging networks of local, non-professional couriers to deliver packages to customers' doors).

However, none of these solutions have quite managed to reduce the traffic load on last-mile deliveries, nor reduce the environmental impact from the emissions. With e-commerce showing no signs of slowing down, the researchers decided to explore alternative options. One such option

is the use of public transport, since consumers are concentrated in urban areas. They looked at the viability of using public transport lines, specifically during non-peak hours, during which there's space to spare onboard.

This idea has already been tested. Pilot projects are ongoing in Karlsruhe, Germany, and in London. In France, Monoprix used the RER D to transport products between their suburban distribution center and Bercy station in Paris (albeit not for customers' home grocery delivery). In Canada and the USA, Greyhound uses passenger buses to deliver packages. These projects have seen early success, providing initial support for the concept's feasibility.

The researchers identified three types of decisions to consider: strategic, tactical, and operational.

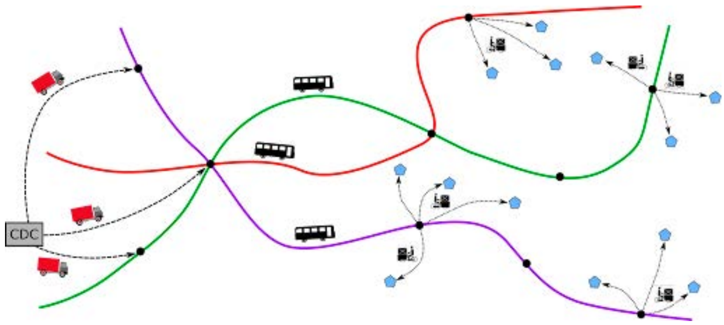
• **Strategic decisions include:**
- The type of transport to use (bus, tram, metro) and which lines
- Where to place the pick-up and drop-off points
- The objectives: number of packages delivered, cost reduction…

• **Tactical decisions include:**
- Whether to use lockers (so that consumers pick up from those) or deliver right to the final destination
- In case of the latter, the type of fleet to use for the last-mile delivery: couriers on foot, bicycle or scooter, robots, autonomous vehicles…
- The size of the fleet

• **Operational decisions include:**
- Daily schedules, routing of packages
- Available time windows
- How to optimize the cost/distance trade-off

In their latest publication, the researchers explored strategic decisions involved in using freight-on-transit for last-mile deliveries, specifically looking at the choice of transport lines and stations to use for delivery purposes.

They looked at a model where packages go from their origin points (Central Distribution Centers) to their destinations (customers), using public transport. First, packages are transported from their origin to public transport stations, then loaded onto the vehicle (be it bus, train, or tram). Then, they are transported to their 'drop-out' station and picked up by freighters (porters, drones, etc.) who cover the last mile and take them to the customer.



This figure illustrates the stages of a Freight-on-Transit system.

These kinds of decisions involve both public authorities, who manage public transport, and private companies, who are responsible for the deliveries. As such, freight-on-transport systems involve agreements between the two types of stakeholders.

In their model, the researchers conducted a case study using the city of Orléans, France, as an example. Currently, Orléans has 90 bus lines, and each line has around 23 stops. They used mathematical modeling (based on Integer Programming formulations) to assess the available budget and the bus system's capacity to answer strategic decision questions such as: which bus lines should be involved and where the "drop-in" and "drop-off" stops should be located. Their model took into account the packages' origins and destinations, the available lines, the potential "drop-in" and "drop-off" stops, each line's package capacity, and the costs involved. Costs can include buying storage equipment and time for loading/unloading packages. The use of this kind of model can help stakeholders to figure out the best system for using freight-on-transit in their city. By doing so, stakeholders can reap the advantages of freight-on-transit: an option worth considering given the ubiquity of e-commerce and its associated societal, financial, and environmental costs. The researchers are also exploring tactical decisions and operational decisions in ongoing research projects to better understand how to optimize the use of public transport for package delivery and identify better solutions for last-mile delivery.

Advantages of using public transport for delivery include:

- A win-win situation for major stakeholders, since public authorities can reduce the environmental impact of deliveries and create a more sustainable city, and logistics companies can reduce their costs;
- A way to adapt to regulations on commercial vehicles in urban areas;
- Improving customer satisfaction by ensuring quick delivery while reducing the load on commercial fleets.

Freight-on-transit concerns city planners, transport authorities, local governments, e-commerce companies, environmental activities, and even individual consumers. It is a practical option worth considering, since online ordering is not going away anytime soon and protecting our environment is an ongoing team effort. Research on alternative and hopefully greener solutions can help stakeholders to figure out the best solution for package delivery in their urban area, which could improve the city's livability and sustainability.

Article written with Julia Smith, editor-in-chief of ESSEC Knowledge

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WHAT IS THE ECONOMIC COST OF PREVENTING CLIMATE CHANGE?

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In a new study, Guillaume Chevillon (ESSEC Business School) and Takamitsu Kurita (Kyoto Sangyo University) introduce a toolbox that offers a data-driven approach to estimating the cost associated with climate change control. Contrary to most evaluations that rely on ad hoc assumptions and simulations, Chevillon and Kurita base their analysis on actual historical data. Estimating long run equilibria between climate and the economy, their toolbox is able to gauge the associated costs, first in retrospective (counterfactual) analyses and hence to guide prospective policy making. As an example of a thought experiment, they wonder what would have happened if governments had coordinated in 1900 to control global temperatures and how much it would have cost in carbon abatement. This refers to technology that can curb the amount of carbon dioxide produced, for example through carbon capture storage or energy efficiency programs.

To explore this, the researchers compiled a new historical dataset allowing them to analyze the interplay between climate and the economy, going back 1000 years. Their modelling provides a formal test of causality, checking whether such policies are "quantitatively" feasible, i.e. whether economic variables can stabilize global temperatures over the long run. Their model also provides ways to assess their cost. Standard so-called "Integrated Assessment Models" feature a negative feedback loop from climate to the economy, whereby economic activity, including factors like consumption and the productivity of investment in capital, not only impacts but can also be affected by greenhouse gas emissions and increasing temperatures. All climate variables interact among themselves, from the human-induced or natural (volcanic) carbon content in the atmosphere (dioxide, methane...), the change in solar radiations absorbed by the earth system, to the energy stored in the deep and shallow oceans. They looked at which economic policies generated an equilibrium between economic activity and the climate.

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In their experiments, Chevillon and Kurita consider how combinations of green (carbon-free) investment and brown (carbon-intensive) growth can lead to temperature stability: this provides an alternative to reducing all growth. It also allows us to look at carbon abatement as a way to control temperatures without resorting to drastic reductions in investment and consumption. In a hypothetical scenario where this kind of policy was introduced gradually in the 20th century to maintain temperatures at their 1900 level (had it been observed at the time), they found that temperature stability was achievable at the costing about ¾ of global GDP (at the level of 2008), meaning that the benefit to the climate was paid for by a cost to economic growth or very high investments on green technologies. While this may seem huge, the researchers treat this as a measure of the cost of climate inaction, the lack of investment in mitigating or abatement technologies. This suggests that massive carbon abatement policies need to be fully implemented today for the climate to benefit. With a need for climate preserving solutions, this research provides the first fully data-backed support for evaluating the cost of policies that governments can implement to protect our world.

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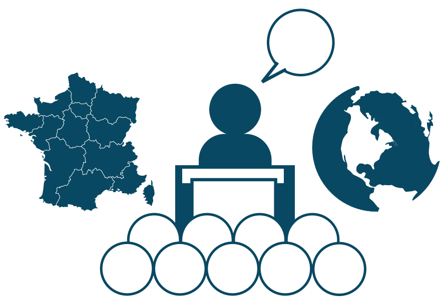

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